



OSPREY AIRCRAFT OF THE ACES® • 56



LaGG & Lavochkin Aces of World War 2

George Mellinger



GEORGE MELLINGER is a member of the Twin Cities Aero Historians, a group which has been in existence for about 37 years, and which has produced several other internationally known aviation authors. He is also an associate of the Russian Aviation Research Group. This is his second book for Osprey, and he is presently working on a volume chronicling the exploits of Yakovlev aces of World War 2.

JIM LAURIER is a native of New England, growing up in New Hampshire and Massachusetts. He has been drawing since he could hold a pencil, and throughout his life he has worked in many mediums, creating artwork on a variety of subjects. Jim prefers to paint with oils on linen or canvas, with realism being the goal. He combines his love of history with his flying experiences to create some of the most realistic and historically accurate aviation paintings seen today. Indeed, technical accuracy and attention to detail have become the trademarks of his work. He uses a computer to digitally create many illustrations of aircraft and armoured fighting vehicles, bringing the same level of detail to his digital creations that earned him a reputation as a fine artist.

OSPREY AIRCRAFT OF THE ACES® • 56

LaGG & Lavochkin Aces of World War 2

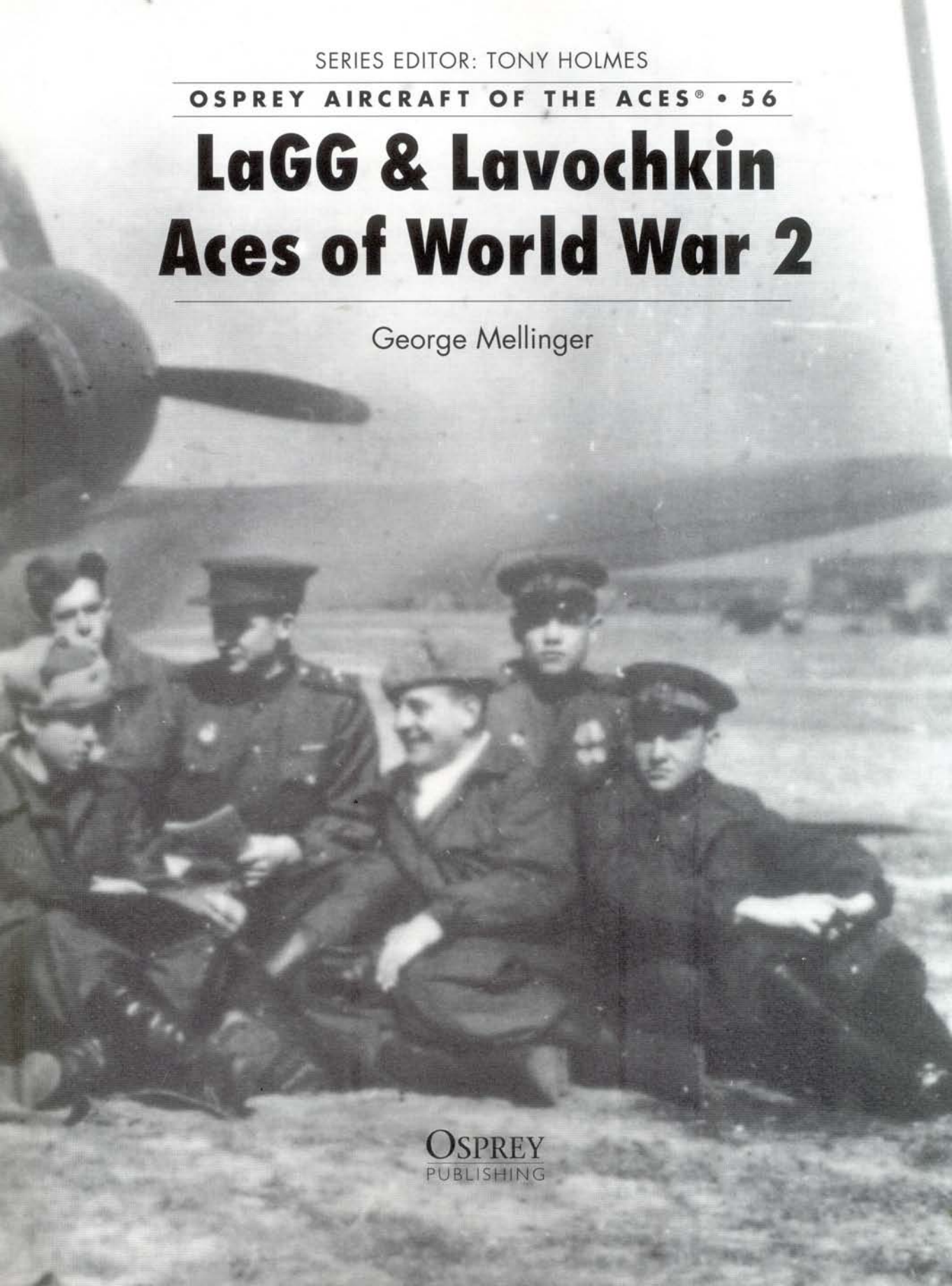


SERIES EDITOR: TONY HOLMES

OSPREY AIRCRAFT OF THE ACES® • 56

LaGG & Lavochkin Aces of World War 2

George Mellinger



OSPREY
PUBLISHING

Front Cover

On 19 February 1945, 176 GIAP's Ivan Kozhedub and his wingman, Dmitrii Titarenko, were 'free hunting' near the frontline. Flying south of Frankfurt at an altitude of some 3500 metres, they spotted an aircraft following the River Oder at a speed equal to the maximum performance of their Lavochkin La-7 fighters – one of the fastest piston-engined fighters of World War 2. Their foe was evidently an Me 262 jet fighter. Kozhedub whipped his aircraft around and set off in pursuit at full speed. The pilot of the Messerschmitt seemed to be unaware of the danger behind him, trusting in the unrivalled performance of his aircraft, and thus neglecting to check his tail. Wringing every bit of speed from his machine, Kozhedub gradually closed the distance and tried to manoeuvre behind and slightly below the Me 262 so that he might at least get a good look at it, if not also open fire. Meanwhile, he summoned Titarenko. 'Dima, don't delay!'

Thanks to his exceptional piloting skill, Kozhedub was able to get onto the tail of the Me 262 and close to within 500 metres of the jet fighter. However, just as he was about to open fire, a line of tracer suddenly flew past the Messerschmitt. Titarenko, diving down from above, had impatiently opened fire! Kozhedub cursed his wingman's mistake – the sort of thing you might expect of a novice, but not an old hand like Titarenko. The plan was ruined. The German, suddenly alerted by the green tracer rounds whizzing past him from Titarenko's La-7, inexplicably broke to the left and flew in Kozhedub's direction. The distance between the two aircraft rapidly closed, allowing the Russian ace to hit the Me 262 hard with an accurate burst of fire, causing it to break up in flight. Kozhedub (who had just claimed kill number 58) later discovered that the pilot of the Messerschmitt fighter was Unteroffizier Kurt Lange of 1./KG(J) 54 (*Cover artwork by Mark Postlethwaite*)

First published in Great Britain in 2003 by Osprey Publishing
Elms Court, Chaple Way, Botley, Oxford, OX2 9LP

© 2003 Osprey Publishing Limited

All rights reserved. Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright, Design and Patents Act 1988, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, electrical, chemical, mechanical, optical, photocopying, recording or otherwise without prior written permission. All enquiries should be addressed to the publisher.

ISBN 1 84176 609 7

Edited by Tony Holmes

Page design by Mark Holt

Cover Artwork by Mark Postlethwaite

Aircraft Profiles by Jim Laurier

Scale Drawings by Mark Styling

Origination by Grasmere Digital Imaging, Leeds, UK

Printed in Singapore by Stamford Press PTE

03 04 05 06 07 9 8 7 6 5 4 3 2 1

EDITOR'S NOTE

To make this best-selling series as authoritative as possible, the Editor would be interested in hearing from any individual who may have relevant photographs, documentation or first-hand experiences relating to the world's elite pilots, and their aircraft, of the various theatres of war. Any material used will be credited to its original source. Please write to Tony Holmes via e-mail at: tony.holmes@osprey-jets.freemove.co.uk

For details of all Osprey Publishing titles please contact us at:

Osprey Direct UK, P.O. Box 140, Wellingborough, Northants NN8 4ZA, UK
E-mail: info@ospreydirect.co.uk

Osprey Direct USA, P.O. Box 130, Sterling Heights, MI 48311-0130, USA
E-mail: info@ospreydirectusa.com

Or visit our website: www.ospreypublishing.com

CONTENTS

CHAPTER ONE

LaGG-3 - THE ORIGINAL 6

CHAPTER TWO

La-5 - THE BREED IMPROVES 30

CHAPTER THREE

La-7 - BEST OF THE BREED 71

APPENDICES 86

COLOUR PLATES COMMENTARY 92

INDEX 96

LaGG-3 - THE ORIGINAL

Fighter pilots have always had strong opinions about the aircraft that they flew in combat. Arguments and disputes develop between pilots of the same air force over the respective merits of their mounts, particularly when there were two main rival types in service. Aerial conflict established the relative merits of the Spitfire versus the Bf 109, and the Mustang versus the Fw 190. But which was better, the Fw 190 or the Bf 109, the P-51 or the P-47, the lineage of Supermarine fighters or the 'House of Hawker'? Each type had its champions, and the debates continue amongst the historians. Partisanship also occurred amongst the Russians over the relative merits of the fighters from Yakovlev and Lavochkin, which were natural rivals due to their domination of the Red Air Force in World War 2.

The initial models of the Yak-1 and LaGG-3 entered service within months of each other, used the same Klimov M-105P inline engine and shared a superficial resemblance. Yakovlev continued to use improved versions of the Klimov powerplant throughout the aircraft's evolution, but Lavochkin switched to the Shevtsov M-82 radial engine in 1942.

While the Yak-1 quickly earned a reputation for being a fighter 'thoroughbred', the LaGG-3 was reviled. In truth, both aircraft shared several unpleasant flight characteristics and initially suffered from poor build quality, but the reputation garnered by the early LaGGs stayed with the fighter to the end, despite the LaGG-3 being modestly improved in 1942-43. Yet, ironically, the hated LaGG-3 enjoyed some success with many early Russian aces, who managed to score a significant number of their victories with it, and a few, such as Igor Kabarov, even became its outspoken 'partisans'.

However, when the LaGG-3 had its Klimov engine replaced with the Shevtsov radial in mid 1942, the aircraft's reputation changed, as did its designation to La-5. In reality, early La-5s were still inferior to their German counterparts, but the 'new' fighter possessed promising development potential. Indeed, by mid-1943 the more refined La-5FN boasted a combat performance that was on a par with the much-vaunted Fw 190, and was superior to the rival Yak-9.

LaGG-3

In 1939 the Soviet government called for the submission of designs for a new fighter. Ultimately, three designs were accepted and ordered into development and production. These three aircraft were the MiG-3, Yak-1 and the LaGG-1 of the new bureau of Vladimir Gorbunov. The latter individual, a senior official in the Commissariat of Aircraft Industry, led a group submitting one of the design proposals. Working under him as chief designer was Semyon Lavochkin, whilst another ministry official



LaGG-3 designer Semyon Alekseevich Lavochkin is seen at work. During the war years all Soviet aircraft designers were given both military ranks and uniforms (via G Petrov)



The prototype LaGG-3 first took to the skies in March 1940. This shot of the well-tested machine was taken in early 1941, by which time series production of the LaGG-3 had begun (via G Petrov)

involved in the development of the fighter was Mikhail Gudkov. These three men duly gave their initials to the new machine – LaGG. Later, Gorbunov and Gudkov faded into the background, leaving the OKB (experimental construction bureau) to take Lavochkin's name.

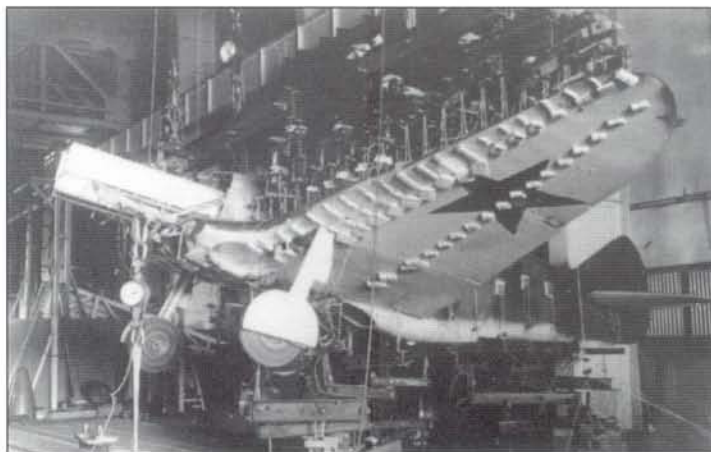
While the MiG and Yak fighters utilised conventional mixed construction, the LaGG entry used a special plywood impregnated with phenols derived from birch tars, called delta-drevsina, which could be moulded to shape. These were heavier and stronger than regular wood, as well as being fire resistant. The Klimov M-105P, producing 1100 hp, was selected as the powerplant. Initially, armament was to comprise an MP-6 23 mm cannon and two Berezin UB 12.7 mm machine guns. The prototype flew in March 1940, and in December of that year it went into production as the LaGG-3. Few, however, had reached frontline units by the time the Germans launched Operation *Barbarossa* in June 1941.

A pre-production LaGG-3 undergoes static testing at the Air Force Scientific Test Institute (NII VVS) in late 1940 (via G Petrov)

The first regiment to receive the LaGG-3 was 19 IAP (Fighter Aviation Regiment) of the Leningrad PVO (Anti-aircraft Defence) District, although it received only a few. The next regiments were 157 and 24 IAPs of the Moscow PVO Zone. With the USSR considering war with

Japan more likely than conflict with supposed 'ally' Germany, most early LaGG-3s were sent to the Far East instead. As a result, there were no LaGGs in the border districts when the Germans invaded on 22 June 1941, although by July a significant number had been thrown into combat as replacement fighters for those units destroyed on the ground in the initial Luftwaffe bombing raids.

The LaGG-3's inadequacies as a fighter soon became glaringly obvious upon its introduction to combat. For a start, its maximum





This photograph of the cockpit of a production LaGG-3 reveals the basic nature of the instruments and gauges fitted as standard to the Russian fighter. The instrument panel in most LaGG-3s was painted white or pale grey (via G Petrov)

A sight regularly seen at most frontline LaGG-3 bases throughout World War 2 – a Klimov M-105 engine that has spewed out oil from a split hydraulic line or seal. The Klimov was a notoriously leaky engine, and the groundcrew of this LaGG-3 Type 35 have clearly got much work to do to return their machine to airworthy status (via G Petrov)



speed fell from 376 mph to 357 mph in the first production series due to the fitment of basic operational equipment. This figure fell still further to 332 mph as yet more modifications were hastily made in the LaGG production factories, which saw the fitment of seat armour, extra fuel tanks and radio receivers. Rate of climb also decreased by almost 50 per cent following these changes. Later production series addressed these maladies by reducing equipment and armament, but this in turn led to other problems.

The dramatic decrease in speed was also the result of poor factory workmanship – a problem which worsened when wartime pressure forced accelerated construction, and factories evacuated to Siberia completed much of their work in the open. There were frequent cases of aircraft being delivered with rags left in pipelines, tools forgotten in the airframe, nuts and bolts left loose and parts fitted carelessly. The surface finish was also crude and the handling poor, with stability problems blighting early LaGG-3s. Controls were considered sluggish and rate of turn inadequate, and the fighter vibrated terribly when in a dive. The Klimov engine also leaked oil, often leading to overheating and seizure, and further degrading the aircraft's already poor external finish. Worse still, the oil that spewed out would be blown back over the windscreen and canopy, obscuring vision and making it impossible to use the gunsight.

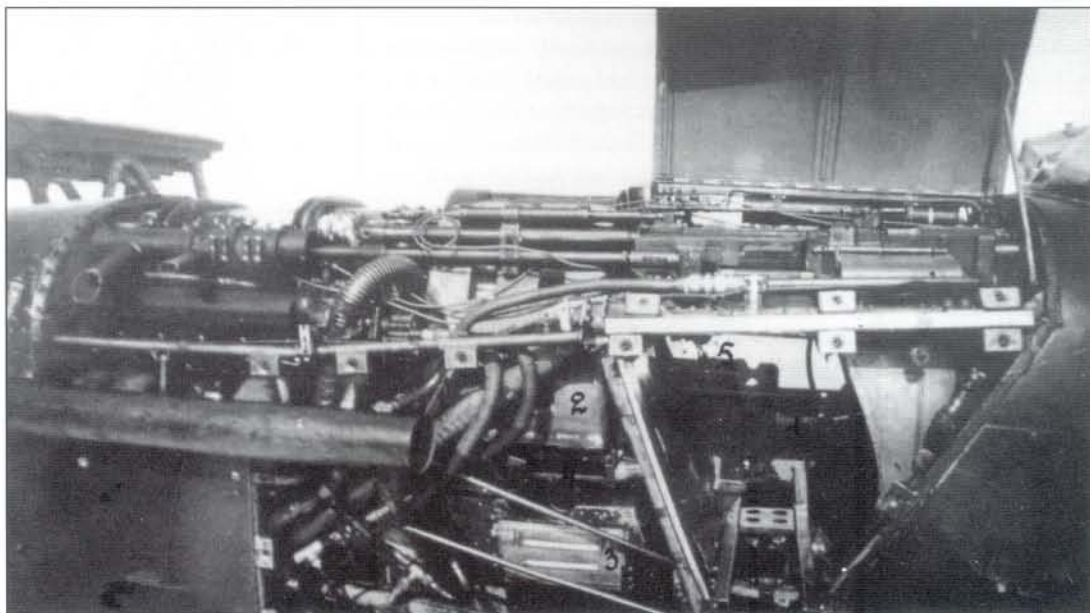
Even before staining, the cockpit transparency was barely fit for the job. Made of a nitro-cellulose compound, it gave poor visibility when new, and soon yellowed with exposure to sunlight. Consequently, many pilots flew with their canopies open. This also helped to reduce the level of heat in the cockpit, caused by inadequate engine ventilation – a problem made worse by the tendency of pilots to fly with their engine vents closed tight in an effort to decrease drag and raise the fighter's top speed.

The LaGG-3 was also blighted with poor hydraulics, causing the landing gear to retract while the fighter was sitting on the ground or, conversely, the undercarriage to lower itself while in flight!

The new fighter's armament also got mixed reviews in combat. With most experienced LaGG pilots having come from Polikarpov machines armed with just four machine guns, the 20 mm cannon and two heavy and two light machine guns fitted in the LaGG-3 seemed a real improvement. However, when the two 7.62 mm ShKAS machine guns were removed from the Series 8 fighter onwards, nobody complained.

From the start of the war, pilots in all Soviet aircraft types had complained about the ShKAS, which was prone to jamming and failure, and which in the words of the pilots themselves 'was good only for damaging the paint of German aircraft!' But the 12.7 mm UB machine gun and the 20 mm ShVAK that remained in the LaGG-3 also had their own stoppage problems.

Like most other Soviet-built fighters of World War 2, the LaGG's radio equipment was also poor.



Many aircraft were delivered with receivers only, allowing their pilots to hear orders, but unable to communicate in return. This remained the case until late in the war, with only the commanders' aircraft boasting transmitters as well.

Despite all these problems, the LaGG-3 was superior to its great rival the Yak-1 in one important respect. The LaGG's delta-drevsina construction rendered it capable of surviving extensive battle damage, and also added a considerable degree of fire resistance. The LaGG was known to burn poorly, while the Yak-1 had a reputation for being a 'flamer'. The account that pilots joked that LaGG stood for 'lakirovannyi garantirovannyi grob' (guaranteed, lacquered coffin) is clever but doubtful. Such criticism of Soviet equipment, or tactics, was 'defeatism', meaning a sentence to a penal battalion. Since even to hear such a subversive joke without reporting it would render the listener as guilty as its originator, a pilot would have had to have been foolhardy indeed to have said such a thing.

The LaGG-3's performance improved during 1942 as the M-105P engine was replaced by the M-105PF, giving an additional 110 hp, and a number of other mechanical and structural modifications were introduced. However, some of these changes added more weight, and the LaGG never really achieved parity with its German counterparts. Numerous other changes were incorporated during the course of the different production batches, including a decrease in the size of the internal fuel tanks in order to lighten the airframe, the addition of extra fuel tanks (or external tanks) to extend range and changes in external rudder and elevator balances and in radio aerials. From Series 4, armament was reduced by the removal of one of the two 12.7 mm UB heavy machine guns, and from Series 8 both light machine guns were deleted. But Series 11 added rails for six RO-82 launchers for the 82 mm RS-82 rocket.

While 'milestone' Series 1, 4, 8, 11, 23, 29 and 66 are currently used to distinguish major stages of development in the LaGG-3, the other series in between also existed, and often featured very minor modifications.

Servicing panels removed, a LaGG-3 Series 1 or 4 has its Klimov M-105 exposed for the benefit of the camera. As with the Bf 109, the LaGG-3 had a 23 mm cannon firing through the propeller hub and two 12.7 mm machine guns located above the engine itself
(via G Petrov)

The La-5 was introduced onto the Gorkii production line in June 1942. Initially, the LaGG-3 and La-5 were produced simultaneously within this factory, but LaGG-3 production had ceased by late 1942, and during 1943 the fighter was produced exclusively at Tbilisi, finally ending with 229 aircraft built in early 1944. Thus, the LaGG-3, in spite of its inadequacies, remained in frontline service into the final months of the war in Europe.

By late 1943, LaGG units were generally located in the southern areas of the front, nearer to Tbilisi. The aircraft often equipped less prestigious units, although some Guards regiments did operate the LaGG-3 well into 1944. The fighter also remained active in the Far East, and some LaGG regiments participated in the brief war against Japan in August 1945.

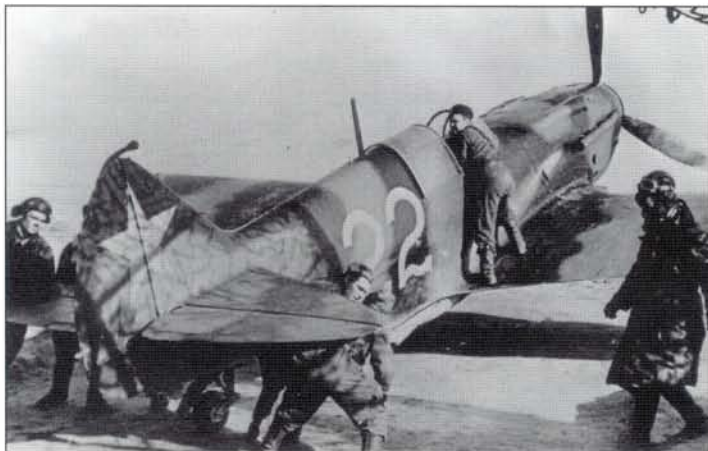
A regiment would typically receive LaGG-3s of a single series type when it was re-equipped with new aircraft at a factory or a replacement training regiment. However, it would soon find itself operating a variety of series as it was issued with individual replacement aircraft from field maintenance depots and other units rotating to the rear. Although pilots certainly knew the difference between LaGG-3 batches, no distinction was ever made in contemporary or subsequent reports and literature, and different series LaGG-3s can only be identified from photographs with some difficulty. Likewise, it is impossible to estimate any meaningful breakdown of production according to series types, except that late Series 35 and 66 machines must have been the most numerous.

In the days immediately following the German invasion of the USSR on 22 June 1941, LaGG-3s were rushed to the front to re-equip the many regiments which had lost their I-16s and MiG-3s on the ground during the initial attack by the Luftwaffe. During the summer and autumn of 1941, these units committed themselves to desperate, and ultimately futile, strafing attacks on advancing columns of Wehrmacht armour and troops. The survivors of these missions rapidly switched back to their air combat role following the German bombing of Moscow.

Over the course of the next 12 months many more units received the LaGG-3, often as replacements for the much better Yak-1 due to the paucity of the latter type. Pilots transitioning from the I-16 disliked the LaGG because it was less manoeuvrable, ex-MiG-3 pilots found it slower and Yak pilots found it . . . not a Yak, and therefore lacking in every way! Nonetheless, 143 fighter regiments have been identified as having flown the LaGG at some stage during World War 2, and it is certain that many other units whose equipment has not been identified also used it.

Countless aces who later became famous whilst flying the P-39, the Yak or the La-5 flew the LaGG-3 for a while early in their careers, accumulating at least a few victories on the type. But relatively few pilots achieved sufficient success to become permanently associated with the LaGG-3.

A LaGG-3 Series 1 of 44 IAP, its apparent squiggled line camouflage on its tail surfaces actually being caused by the shadow from camouflage netting not visible in this photograph. 44 IAP was equipped with the I-16 when the Germans launched Operation *Barbarossa*, although the regiment received its first LaGG-3s just a matter of weeks later. On 7 March 1942 44 IAP became 11 GIAP, and it later flew both the La-5 and the Spitfire IX (via G Petrov)





V A Zaramenskikh climbs into the cockpit of his LaGG-3 prior to departing on yet another combat sortie in August 1941. He flew with one of the regiments controlled by 6 IAK of the Moscow Air Defence Zone (via G Petrov)

A LaGG-3 Series 1 of 44 IAP taxis out at a makeshift airfield somewhere on the Leningrad Front in late 1941. Notice that the fighter's bothersome sliding canopy and its wheel covers have been discarded – the latter quickly got clogged up with slush and mud when operating from surfaces such as this (via G Petrov)



One of the first units to receive the LaGG-3 in the west was Murmansk-based 145 IAP, which began the war with the I-16 and then re-equipped with the new fighter in August 1941. One of its most successful pilots was Capt Leonid Gal'chenko, commander of the second squadron, based at Shongui. A relatively old man of 29 years, Gal'chenko had been involved in the fighting over Finland in 1939-40, although he had failed to see any aerial combat. Flying an I-16 when the Germans invaded, he had claimed a single victory in July.

In early August 145 IAP received a dozen LaGG-3s, one of which was allocated to Gal'chenko. His first experience with the fighter left him less than impressed with his new mount as its undercarriage collapsed on landing. The reliability of the unit's LaGGs became such an issue that the regiment's maintenance officer was arrested. However, his replacement quickly taught the pilots how to exploit the fighter's variable pitch propeller, and other modern features, and incidents slowly decreased.

On the night of 9 August, with the midnight sun still in the sky, Gal'chenko shot down a reconnaissance aircraft that he identified as a 'He 111' – it was actually a Ju 88. Following this success he changed his opinion of the LaGG-3 and became one of its few advocates. The budding ace enjoyed more success on 15 September when, during one of the Luftwaffe's last massed air attacks on Murmansk, Gal'chenko, and his wingmen Viktor Mironov and B M Kuz'min, succeeded in shooting down three Ju 87s. By the end of the month he had scored his eighth confirmed victory – a Bf 110 – during the course of 77 combat sorties.

At this time Gal'chenko was nominated for the Hero of the Soviet Union (HSU), the USSR's highest military decoration. However, he said that his wingman had saved him from certain death on numerous occasions, and that he would not accept the award unless Mironov also received it. They were both eventually awarded the HSU on 6 June 1942.

It was during September 1941 that Gal'chenko's now famous 'cat' motif first appeared in silhouette form on the tail fin of his LaGG. He recalled post-war that he originally had the marking applied after seeing emblems on the German aircraft that he had encountered, believing that his enemies viewed these motifs as superstitious talismans.

Gal'chenko denied that he was superstitious himself, but decided that the cat brought him luck, so he had it painted onto on all of his



Maj Leonid Gal'chenko's LaGG-3, complete with his white cat motif. The presence of nine red and nine white outline victory stars aft of the cockpit establish that this photograph was almost certainly taken in November 1942 – just prior to Gal'chenko's posting to division headquarters (via G Petrov)

An anonymous LaGG-3 Series 4 taxis out in the snow on the Kalinin Front in early 1942. This machine still boasts its mainwheel cover, despite the heavy snow that blankets its airfield (via G Petrov)



aircraft through to war's end – he may have been right, for he was never once shot down.

In September 1941 Gal'chenko was promoted to major and sent to command the newly-formed 609 IAP, which was equipped with an assortment of I-16s, MiG-3s and LaGG-3s at Kandalaksha. Later, he became deputy CO of 324 IAD (Fighter Aviation Division), and this was when he exchanged his LaGG-3 for an La-5F. Gal'chenko continued to see combat over the Arctic and on the Karelian front through to VE-Day, scoring his last victory (against a Bf 109G) over Salmiyarvi on 22 October 1944. He flew 310 sorties and scored 24 individual and 12 group victories.

Aleksandr Zaitsev was another early LaGG-3 ace to serve alongside Capt Leonid Gal'chenko's within 145 IAP in the early months of the war, the talented pilot leading the regiment's third squadron. Scoring the first of his 14 individual and 21 shared kills while flying the I-16, he then swapped to the LaGG-3 in early August 1941. Although having flown the latter fighter for just a few days, Zaitsev claimed his most significant victory on 4 August when he encountered the much-feared Bf 110s of ZG 76.

The *Zerstörer geschwader's* leading pilots at the time was Gerhard Schashke, whose machine the Soviets had come to recognise. Dubbed 'Ryzhii' (red hair) by his foes, Schashke had used the speed advantage of his Bf 110 to great effect in the opening weeks of the war in the east, performing diving attacks on unsuspecting Soviet aircraft that had netted him 19 victories by August.

On 4 August, 145 IAP scrambled Zaitsev's flight of four LaGGs to intercept yet another German formation. Gaining altitude, the Russian pilots soon spotted the enemy – a *schwarm* each of Bf 109s and Bf 110s, with 'Ryzhii' flying the



lead *Zerstörer*. During the opening head-on pass the Bf 110 ace downed two LaGGs, and just when it looked as if the surviving 145 IAP pilots would be overwhelmed, a formation of three I-16s engaged the Bf 109s.

As Schashke shot down his second LaGG-3, Zaitsev fired a burst at the Bf 110. His opening rounds missed their target, but a second burst hit the fighter-destroyer's right engine, which began to smoke. Zaitsev saw 'Ryzhii's' aircraft fall away, but he was prevented from finishing him off by a second Bf 110. The battle continued for another 30 minutes, and in that time a third LaGG and a solitary I-16 were shot down before Zaitsev and the two remaining Polikarpov fighters could escape.

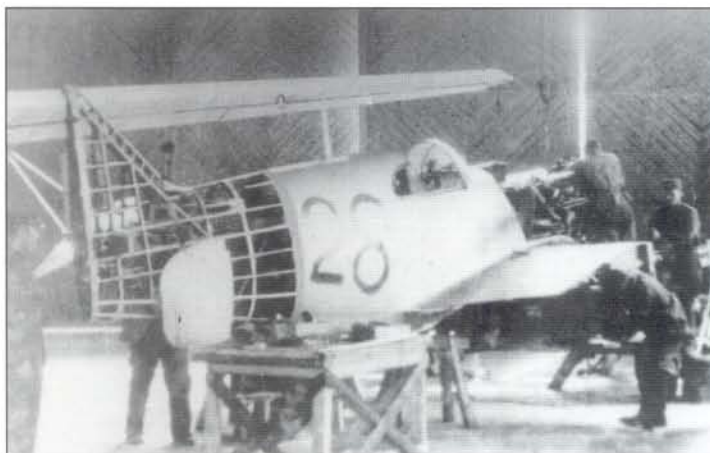
What seemed to have been yet another bad day for the Soviet fighter force improved dramatically when communist troops found that Schashke's Bf 110 had come down on the tundra behind their lines. The ace had been killed in the crash landing, and his gunner had died in a 'shoot out' with elements of the Red Army on the ground.

In December 1941 Aleksandr Zaitsev briefly commanded 760 IAP (newly formed with Hurricanes), although at the end of April 1942 he resumed command of his old squadron within 145 IAP. He was subsequently killed just a matter of weeks later on 30 May 1942 while converting onto the P-39 Airacobra.

Returning to the summer of 1941, 5 IAP-KBF (Red Banner Baltic Fleet) was yet another early recipient of the LaGG-3, the regiment having begun the war with its squadrons dispersed near Leningrad and Tallinn. Involved in combat from the very first days of the conflict, 5 IAP-KBF's pilots, flying I-15bis and I-16 fighters, suffered terribly at the hands of their battle-hardened Finnish and German counterparts. The regiment fought on doggedly nonetheless, and on

A force-landed LaGG-3 Series 4 is recovered and evacuated by Red Army forces on the Leningrad Front in November 1941. This scene was repeated over and over again during the bitter winter of 1941-42 (via G Petrov)

A battle-damaged LaGG-3 Series 1 is rebuilt at 1 Repair Base, Komendaiskii Aerodrome, in Leningrad, in late 1941 (via G Petrov)





LaGG-3 Series 4 serial 070171 'Silver 71' of 524 IAP was shot down by Finnish flak near Nurmoila on 6 March 1942. The aircraft was damaged beyond repair by its pilot when he force-landed, leaving the ever-resourceful Finns to strip it of its engine and guns (*via G Petrov*)

A mid-series LaGG-3 is refuelled from a mobile bowser on the Kalinin Front in the summer of 1942. It is doubtful whether a couple of tree branches thrown across an aeroplane parked in the middle of a field would have fooled any aerial observers! (*via G Petrov*)



18 January 1942 it was rewarded by being redesignated 3 GIAP (Guards Fighter Aviation Regiment). By then the unit was well on its way to being totally re-equipped with the LaGG-3, the regiment having received its first examples in the late summer of 1941. These machines served with 3 GIAP until mid 1943, when the unit took delivery of the La-5.

Two 5 IAP-KBF pilots would enjoy some success with the LaGG-3, the first of these being Georgii Kostylev. A veteran of combat over Finland with the unit, he was already a senior lieutenant by June 1941. Kostylev, who had scored four victories with the I-16 prior to receiving a LaGG-3 in August, 'made ace' when he downed a Ju 87 over Khronshtat on 16 September. He followed this up with two Ju 88s by month-end. On 5 February 1943 Kostylev was himself shot down, the ace baling out with a wounded arm.

By April 1943 he had flown 223 sorties and engaged enemy aircraft on 59 separate occasions. Credited with nine individual and 34 shared victories, Kostylev was awarded the HSU on 23 October 1942. From May to October he was forced to fly an obsolescent Hurricane, but in November he was able to return to the LaGG-3, and he immediately added to his score when he downed two 'Junkers' during the course of a single sortie on the 7th of that month.

In February 1943 Kostylev got into serious trouble. By then a celebrated war hero, he was invited to attend a dinner party being given by a well-connected socialite in Leningrad. In spite of the blockade and general

hunger which persisted (although not as severely as during the previous winter, when a million people had starved to death), his hostess had managed to assemble an elegant banquet with rare wines and rich cuisine, served on expensive china and crystal. The other guests were high-ranking and politically-connected officials, while Kostylev had literally just returned from a combat mission that very afternoon.

The ace's own mother had survived the hell of the famine in

Leningrad in 1941-42, and when he saw the splendour of the banquet laid out in front of him, Kostylev denounced in a righteous fury 'This island of luxury, in a time of plague', smashing his crystal and pushing over a major of the supply service who had tried to restrain him. Nothing could save him from the hatred of the offended courtier, not his awards, his fame or his status as the best fighter pilot in the Baltic Fleet. Within days Kostylev had been demoted to private, stripped of the title Hero of the Soviet Union and his other awards and expelled from the Communist Party. Worse still, he had been sentenced to serve in a penal battalion for a month.

Being sent to such a unit was ordinarily tantamount to a death sentence. However, Kostylev's fellow convicts knew how he had 'fallen into this pit', and they shielded him from the worst treatment. His sentence completed, Kostylev requested a return to aviation. However, his regiment refused to accept him back. Fortunately, the new commander of 4 GIAP-KBF, Vasilii Golubev, was an old friend, and he welcomed him into his unit, which had just converted to the La-5.

By the end of August 1943 Kostylev was deemed to have been 'rehabilitated', and his medals and honours were duly restored. It appears that Kostylev did not only have problems with his superiors, as a reporter discovered when he asked him why he had so many more group kills than individual victories. Kostylev explained that he habitually helped new pilots, passing along many kills which could rightfully have been his alone. Quickly annoyed by the reporter's line of questioning, the ace sharply replied, 'All right, if they have to be balanced, from now on I won't count the group victories until they are even!'

Kostylev flew his first mission with 4 GIAP-KBF on 21 April 1943, and he immediately enjoyed success by destroying a Finnish Fiat G.50 and forcing another down to sea level, where he ordered his wingman to finish it off. He would eventually claim nine kills (including three Fw 190s) whilst flying the La-5 with 4 GIAP-KBF.

In October 1943 Kostylev was appointed Chief of the Inspectorate of Fighter Aviation VVS-KBF and promoted to major. After moving to the inspectorate, he continued to fly sorties with the line regiments and claim further victories, but he distributed them to the pilots of the units with which he was flying. By war's end Georgii Kostylev had flown 418 sorties and fought 112 aerial combats. There is some debate about just how many victories he scored, although it would seem that his tally must number at least 22 individual and 34 shared kills, as well as the numerous victories which he gave away to novices or did not count.

Fellow 5 IAP-KBF ace Igor Kabarov initially had his application for military flying training rejected on medical grounds, although he managed to enter a glider school which was soon re-equipped with powered aircraft. After a short spell as a civilian instructor, he joined the



This well-weathered, ski-equipped LaGG-3 suffered serious damage when it nosed in on landing on the Kalinin Front in early 1942. Note that the fighter's tail wheel has also been replaced with a ski (via G Petrov)



LaGG-3 Series 29 'Red 59' was spotted from the air in a bog and retrieved by 3 GIAP-KBF in early 1942. Returned to airworthiness, it was flown by ace Igor Kabarov for several weeks in February before being damaged once again and sent back to a repair depot. Issued to a different regiment following its rebuild, 'Red 59' was subsequently damaged yet again and repaired, and by a quirk of fate it was then sent back to Kabarov's regiment in October 1942 (via G Petrov)

This LaGG-3 Series 35 was flown by Capt Semyon Ivanovich L'vov, who completed 280 sorties whilst serving with 3 GIAP-KBF. He also scored six individual and 22 shared victories (mostly in the LaGG-3 and La-5), before being transferred to naval headquarters in February 1943 (via G Petrov)



Navy and completed naval flight school. By June 1941 Kabarov was a lieutenant in 5 IAP-KBF, flying the I-16. In August he scored his first kill, but over the following weeks he repeatedly missed out on claiming further victories when his bullets failed to penetrate the armour-plating of the German aircraft that he encountered.

In late August Kabarov and his squadron were sent to Gorkii to receive LaGG-3s. He soon fell in love with the new fighter, Kabarov

being one of only a handful of Soviet pilots to openly admit this. First, he was impressed with its landing gear, which retracted automatically at the press of a button, instead of requiring a hand crank as in the I-16. Kabarov also rated its armament. Finally, the LaGG-3 was faster than the I-16. And even after he had flown the Yak-1, Kabarov still preferred the LaGG.

The future ace flew his first LaGG-3 mission on the morning of 10 September 1941 when he sortied with Georgii Kostylev and Vladimir Khaldeev, who had just been made squadron commander. Intercepting an Hs 126 soon after take off, Khaldeev attacked the army co-operation aircraft and was then bounced by two Bf 109s. Kabarov instinctively positioned his LaGG-3 between the Germans and Khaldeev, taking the brunt of their attack. The Henschel pilot, meanwhile, had avoided Khaldeev's pass, and his chances of survival improved greatly when yet more Bf 109s dived out of the sun. Khaldeev's LaGG then fell away as if damaged, spinning downward. At the last minute he pulled out of his ruse-spin and attacked the Henschel from below, shooting it down. The three Russians immediately broke contact with the enemy and returned to base.

The pilots had just sat down to lunch when the signal rocket went up again, sending Kabarov and his comrades dashing for their fighters – three Junkers bombers, without escorts, had been spotted flying towards their airfield at Nizino. When engaged by the fighters, two of the Ju 88s dived for the ground and fled at low level, while the third aircraft climbed above the clouds, with Kabarov in hot pursuit. When they both suddenly broke through the overcast, the Russian pilot found himself positioned



immediately astern of the bomber. Pressing home his attack, he shot his victim down some three kilometres from the airfield.

By the end of the day, Kaberov had flown seven sorties, leaving him barely able to land after his last flight. Indeed, he fell asleep in the cockpit of his LaGG-3 before taxiing back to his revetment. 11 September proved to be even more fatiguing, although he and Kostylev were able to share in the destruction of yet another Hs 126.

Forty-eight hours later the squadron was forced to evacuate Nizino when the airfield came under heavy artillery fire, its pilots flying back to Leningrad. On 14 September Kaberov downed a Bf 109, although this victory was quickly tempered by a double blow the following day. He had loaned his LaGG-3 ('13') to his friend Shirobokov, whose own fighter was being repaired, and both man and machine were shot down.

On 16 September the Luftwaffe, spearheaded by the Ju 87s of StG 2, commenced a major aerial campaign against the Baltic Fleet base at Khronshtat, and in particular the battleships *Marat* and *Oktyabrskaya Revolutsiya*. Kaberov's squadron provided much of the Soviet air defence in opposition to this offensive.

Kaberov made his first flight in Shirobokov's now-repaired LaGG when the squadron was scrambled to defend Khronshtat from a bombing raid on the opening day of the campaign. Kaberov took off last, and quickly discovered that as soon as he retracted the fighter's undercarriage, the left gear leg fell out and hung extended. Ordered to return to base, Kaberov flew a slow circuit and then attempted to retract his the gear again. This time he held his finger on the retraction button in order to keep it raised, and he reported to his ground controller that the problem had been rectified.

When Kaberov reached Khronshtat, he found the sky full of Ju 87s, and their escorts. Quickly getting in behind a Stuka, he released the undercarriage retraction button in order to fire his guns and the left gear leg immediately fell down once again. The fighter now pulled to the left thanks to the drag caused by the undercarriage leg, making it difficult to both manoeuvre and aim. Unperturbed, Kaberov closed with the Stuka and sent it down with a burst of fire.

By now he was being barraged by radio calls from other LaGG pilots in the area. 'Retract your undercarriage. Who has a wheel down? Retract it!' The escorting Messerschmitt fighters had also noticed the handicapped

Lt Tikhon Sviridovich Zhuchkov of 3 GIAP-KBF flew this LaGG-3 Series 35. He was sent to the front in December 1942, and by the end of the war he had completed 257 sorties and scored 11 individual and 12 shared victories in 37 air combats. Zhuchkov was awarded the HSU on 6 March 1945 (via G Petrov)

LaGG, and one of them got on Kaberov's tail. However, Matvei Efimov arrived in time to shoot it down and save his comrade, who was able to escape and return to base. The attacks on Khronshtat lasted for a full week.

On 2 November the Soviet command began the evacuation of Hango naval base, isolated deep inside enemy territory. Efimov, Kostylev and Kaberov were sortied as scouts for the returning naval ships, which were packed with fleeing personnel. On the outward leg of their flight, Kaberov noticed something strange – a solitary Tupolev SB-2 flying on an approaching course with its wheels lowered. When the bomber spotted the LaGGs, it rocked its wings in a friendly manner and went on its way. Kaberov was puzzled not only by the extended landing gear, but also by the fact that all SBs had recently been ordered to operate only at night.

Maintaining radio silence as ordered, Kaberov could not mention this to his colleagues, but on the flight home they again encountered the mysterious SB, now headed toward Vyborg. It rocked its wings yet again, and this time Kaberov decided to investigate. There on the wings he spotted Finnish markings! The LaGG ace missed his target with his first attack, but he chased the SB into the clouds, and when it emerged, he closed in and shot it down. By the time Kaberov arrived back at base, local Red Army troops had already sent a telegram to his base telling his CO that a LaGG had shot down an SB. As soon as he landed Kaberov was ordered to surrender his pistol and was taken into custody. A short while later a second telegram arrived, stating that the gunner from the SB had been captured, and that the aircraft had indeed been flown by the enemy after all.

In late 1941 Kaberov's regiment began flying defensive patrols over the Leningrad ice road, and he celebrated the new year by downing a Bf 109 on 1 January. On the last day of the month, whilst on yet another patrol, he encountered two Bf 109s which hastily made off after one of them had fired a single burst at the LaGG pilot from long range. Turning for home, Kaberov had not travelled far when his fighter's motor began to run roughly and suddenly seized – a single chance round from the Bf 109 had found the LaGG's radiator. Kaberov glided down for a forced landing, the aeroplane suddenly stalling in close to the ground. Although badly shaken by the crash, the pilot survived unhurt, and as he began to climb out of the wreckage he was taken prisoner by a Russian soldier who refused to believe that Kaberov was on his side!

Once out of the LaGG, Kaberov saw why his fighter had stalled at the last minute. He had hit a power line. The tail and rear fuselage of his aircraft were still dangling from the line, and both wings had been sheared from the fuselage. After sorting out his identity at infantry headquarters, Kaberov returned to his airfield. When he arrived, he was greeted with 100 grams of vodka and the admonition 'You have no right to get yourself killed. You are the only accordionist in the regiment'.

The following month Kaberov's LaGG ('88') was damaged by a novice pilot who had borrowed it without the ace's permission. With supplies of the LaGG-3 drying up, his squadron had to replenish with Hurricanes, which none of the Russian pilots rated overly highly. Shortly after returning from the depot with one of the new machines, Kaberov was briefed that Finnish fighters were far more active in his area than had previously been the case, and that the enemy was now fielding captured I-153 Chaikas in Russian markings, so there was a need for special vigilance.

On Kaberov's very next mission, he and Kostylev were scrambled and told to intercept an enemy fighter approaching Khronshtat at a height of 5000 m. Failing to spot their target after a thorough search of the area, the pair instead noticed a solitary I-153 flying at low level across the Gulf of Finland towards 4 GIAP-KBF's airfield. Seeing the red stars on its wings, they decided the fighter was undoubtedly Finnish, and its pilot intent on a surprise attack. Kostylev led the interception, firing a burst which caused the Chaika to roll over. Kaberov then finished it off, the biplane crashing on the airfield perimeter.

Both men quickly landed back at base, happy in the knowledge that they had saved their airfield from attack. However, when they tried to report their success Capt Myasnikov interrupted them by stating, 'I know what you shot down, but do you know exactly whom you shot down?' Their victim was none other than Maj Biskup, chief of staff of 4 GIAP! Fortunately for all concerned, the major survived the experience unharmed, and accepted that he was at fault for having made an unplanned trip over Finland while testing a newly repaired aircraft.

For the next few months Kaberov continued to fly the Hurricane, before finally returning to the LaGG-3 when the squadron received a significant number of fighters from the field repair depot in October. By chance, one of them was Kaberov's much-loved '88', which had been repaired, sent to another unit and damaged again. Patched up once more, it had now come home to Kaberov like a favourite and faithful old hound!

On 12 January 1943 the Red Army launched the Leningrad breakout operation, and during the several days of intense air activity that followed Kaberov added a Bf 109, a Ju 88 and two Bf 110s to his tally, as well as sharing in the destruction of two more fighter-destroyers with a new pilot whom he was introducing to air combat. Kaberov was lucky to survive his encounter with the Ju 88, for his LaGG was hit by defensive fire from the bomber which tore off the cowlings and caused the engine to smoke and misfire. Short of his airfield, Kaberov's Klimov quit altogether, and since the loss of power in the LaGG also meant that the undercarriage could not be lowered, the ace glided in and belly-landed on the runway.

The fighting for newly-won Soviet territory continued as a bridge was built across the frozen Neva, which VVS (Air Force) units fought hard to protect. Patrolling in the vicinity of the bridge on 10 February,

Kaberov led Shestopalov, Shilkov, Tsapov and Prasolov into action against a formation of six Bf 109s and two Fw 190s. Tsapov and Prasolov were ordered to remain above the enemy fighters in case other German aircraft attempted to bounce the LaGGs. Once they were happy that there were no more enemy aircraft lurking in the area, they were to fall on the Germans 'like snow on their heads'.

Shilkov soon found himself being shot at by an Fw 190, forcing Kaberov to hastily come to his aid by

This ski-equipped LaGG-3 Series 23 has been fitted with six RO-82 rocket rails and VAP underwing smoke/gas dispensers. Such equipment significantly reduced the LaGG-3's already inadequate top speed (via G Petrov)





A late model LaGG-3 of 9 IAP-ChF is seen on short finals as its approaches an unnamed airfield in the Caucasus. The aircraft's large trailing edge flaps made it relatively easy to land, whilst its widely spaced undercarriage proved ideally suited to the austere airfields synonymous with the Great Patriotic War (via G Petrov)

According to this photograph's official archival identification, squadron commander Capt I K Polyak (right) gives a pre-sortie briefing to Lt P I Korobovskii (left) and Sr Lt B V Maslov of 9 IAP-ChF at Gelendzhik, in the Caucasus, in April 1943. However, while the hilly backdrop to this clearly posed shot looks like the North Caucasus coast, the lack of tail stripes and the location of the aircraft numbers on the LaGG-3s behind the pilots raise questions about the accuracy of this identification. Notice the red star painted on the spinner of the LaGG closest to the camera (via G Petrov)



performing a head-on attack – something the Germans ordinarily had no stomach for. But this foe held firm, and the two fighters rushed at each other, either pilot holding his fire until the last moment. When literally just feet apart, the German swerved, allowing Kabarov to fire a burst into his belly before passing close by underneath. The Fw 190 fell away in flames, and the remaining German pilots broke off the fight. This was Kabarov's 28th victory.

When he got back to base, the ace

was so unnerved by the whole experience that he could not find the strength to extricate himself from the cockpit of his LaGG. In subsequent months he also suffered from a recurring nightmare in which he would see a yellow-nosed Focke-Wulf flying straight at him.

4 GIAP-KBF finally received modern fighters during the summer of 1943, its first squadron re-equipping with the Yak-1 and the second and third squadrons being issued with the La-5 – a fighter which Kabarov (a member of the second squadron) preferred to the LaGG. After familiarisation with their new aircraft, the regiment returned to the front on 18 July, Kabarov's squadron going to Seyskari Island so as to provide close escort for the Il-2 *Shturmoviks* based nearby. Kabarov received the HSU six days later.

The recently decorated ace claimed his final kill shortly after returning to action in the summer of 1943, and he had a most unusual witness for his last victory. Kabarov had been ordered to fly from Seyskari Island to regimental headquarters for a meeting, and he was joined on the flight by an engineering officer who also needed to return to the mainland after being temporarily seconded to Kabarov's unit. As there were no liaison aircraft available to fly the officer back, Kabarov fitted him into the vacant fuselage area behind his seat and took off. En route, they encountered four Bf 109s that were spoiling for a fight with a lone Lavochkin. Kabarov had no choice but to accommodate them. He was able to fire a burst into one

aircraft, which fell away smoking, before being jumped by the others and forced to fly a series of desperate manoeuvres. Eventually a flight of Yaks arrived, allowing Kabarov to break away from the Bf 109s and continue on his way to headquarters.

In the excitement, Kabarov forgot all about his passenger, who was left in the aeroplane after he had landed. He was found some time later by guards, who assumed that he was an intruder until the ace explained the circumstances, allowing the by now irate officer to be freed.

On 18 August 1943 Igor Kaberov was withdrawn from combat and retrained as an instructor. He remained in this role until he was sent to the Far East to fly in the brief war against Japan. He scored 29 victories, 11 of which were individual kills and the remaining 18 shared.

Andrei Kulagin graduated from flying school in the spring of 1942 and was sent to the front in July to serve with 249 IAP (163 GIAP from 5 February 1944), which was equipped with the LaGG-3. He got off to a slow start and did not score his first victory until 27 March 1943, when he encountered four Bf 109s whilst leading his flight on a ground attack mission. Kulagin duly shot down the leader of the German formation. From that point on he continued to score regularly.

In January 1944 249 IAP was assigned the task of night interception, which proved difficult in the radarless LaGG-3. The tactics employed by the unit were much the same as those used by RAF Hurricane nightfighter squadrons in 1941-42 and Luftwaffe *Wilde Sau* units, equipped with Bf 109s and Fw 190s, in 1944-45.

Vectored by ground control to the general vicinity of the target aircraft, the pilot tried to find the enemy through a combination of searchlights and good night vision. Kulagin excelled in this task, and he claimed seven He 111s shot down at night. By February 1944 he had completed 320 sorties, and had claimed 22 personal and four group victories during the course of 106 aerial combats. He was awarded the HSU on 1 July 1944.

In late 1944, 163 GIAP finally replaced its LaGG-3s with La-5. By war's end Kulagin had been promoted to captain and squadron commander, having flown 762 sorties and fought in 146 aerial combats. His final score was 32 individual and seven shared victories. Andrei Kulagin is notable for having scored 26 of his victories with the LaGG-3, thus making him the most successful pilot on the type. He was also Russia's top-scoring nightfighter ace.

Like 163 GIAP, 88 IAP was yet another regiment which flew the LaGG-3 well into 1944. Seeing combat over the North Caucasus and southern Ukraine, the unit received its first LaGG-3s in November 1942, and was still flying the type when it was designated 159 GIAP on 5 February 1944 – the first replacement La-5s were issued to the regiment in May 1944. Despite flying obsolescent fighters, pilots from the regiment still managed to earn nine HSUs, and at least 15 of them qualified as aces.

Another photograph of 9 IAP-ChF LaGG-3s at Gelendzhik in 1943, this time showing Series 66 machines correctly marked with the unit's distinctive diagonal tail stripe and aircraft number forward of the white-bordered fuselage star (via G Petrov)





One of the most famous, and mysterious, of all LaGG photos is this one of a pilot identified as Lt Yurii Shchipov, who was obviously a member of 9 IAP-ChF. Although credited with eight victories, there is no mention of Shchipov (aside from the notation on the back of this photo) in any Soviet source yet uncovered, and the possibility remains that he is someone else misidentified. It is clear, however, that this pilot flew a Series 66 machine. For the curious, the inscription behind the cockpit reads *lyuk elektro akkumulyatora* (hatch for the electrical accumulator). The inscription beneath the aircraft's side number cannot be read (via G Petrov)

This close-up of Lt Shchipov reveals just how crudely his fighter's victory stars have been applied (via G Petrov)



Amongst those to achieve ace status with the regiment was Vasilii Maksimenko, who completed flight training at Orenburg in 1938 and saw his first brief action in the 1939 invasion of eastern Poland. Serving with 88 IAP when the Germans invaded in June 1941, Maksimenko had flown some 250 sorties, and destroyed seven aircraft, by the time he was shot down defending Mozdok from attack on 25 August 1942. He received the HSU on 23 November while still recovering from his wounds in hospital.

When Maksimenko eventually returned to his regiment, he found that 88 IAP had converted to the LaGG-3. In August 1943 he was promoted to major and appointed regiment commander. In early 1944 Maksimenko was the recipient of a brand new presentation LaGG-3, which carried the inscription *Geroyu Sovetskogo Soyuza Maksimenko V. I., ot zemlyaka rabocheho zavoda "Glavarmalit" Goncharenko M. M.* (to Hero of the Soviet Union, Maksimenko V. I., from his neighbour, a worker at the Glavarmalit factory, Goncharenko M. M.). Maksimenko did not get to fly this aircraft for long, however, for in early May 1944 the regiment converted to the La-5. 159 GIAP then transferred to the Second Belorussian Front, where it fought for the rest of the war. By VE-Day, Maksimenko had flown 516 sorties and scored 17 individual and eight shared kills.

Arguably the most outstanding pilot to serve with 88 IAP, Vasilii Knyazev was unquestionably the hardest working. Already an experienced pilot and a flight commander in the regiment when the Germans launched their invasion, he used his I-16 to down a Ju 88 just 48 hours into the Great Patriotic War. Knyazev's premier victory was also his regiment's first kill.

During the first two years of the war in the east, Knyazev flew 576 sorties and fought in 122 aerial engagements. He succeeded in scoring 11 individual and nine group victories in that time, earning him the award of the HSU on 24 August 1943 – a few days earlier, on 18 August, Knyazev had been promoted to captain. He remained in action over the Caucasus and Kuban, then southern Ukraine and finally East Prussia and Berlin until war's end. By then he had completed a staggering 1088 sorties (a total exceeded by just a handful of allied fighter pilots, and equalled by only the most experienced of Luftwaffe *experten*) and encountered enemy aircraft on 139 separate occasions. Vasilii Knyazev's overall score numbered 29 individual and at least nine shared victories.

Another outstanding pilot assigned to 88 IAP pre-war was Jnr Lt Kubati Kardanov, a Kabardian from the Caucasian nationalities. He scored his first victory on 13 July 1941, and by June 1943 he had flown 550 sorties, survived 90 aerial combats and scored seven individual and 12 shared kills. Kardanov had also excelled at ground strafing, destroying two tanks, 127 trucks, seven artillery pieces and 13 flak sites. He was awarded the HSU on 24 August 1943.



Whilst patrolling with his flight in late November 1943, Kardanov was ordered to rush to the aid of a Pe-2 reconnaissance aircraft that was under attack by Bf 109s – the ace was flying a new LaGG-3 with a more powerful engine, and he soon left his flight behind. When Kardanov spotted the besieged Pe-2, it was being set upon by no fewer than six Bf 109s, so he attacked immediately. Rapidly shooting down an enemy fighter, he was just about to engage a second Messerschmitt when a burst of fire from a third Bf 109 hit him in the left arm. Although losing blood from his wound, Kardanov remained with the Pe-2 and continued battling the Bf 109s until the reconnaissance aircraft had escaped. He then broke off combat and returned to his own airfield, from where he was sent to hospital. This was Kardanov's 663rd sortie.

Out of action for more than a year, the ace was finally deemed fit enough to return to 159 GIAP in early 1945, by which time the regiment was flying the La-5. At first Kardanov's doctors restricted his flying to the squadron's Po-2 biplane hack, but eventually the ace was able to return to combat just in time to complete a number of missions over Königsberg. By the end of the war Kubati Kardanov had flown over 700 sorties and scored 17 individual and 12 shared victories.

Lt Evgenii Pylaev came to 88 IAP in August 1942 after having completed a two-year spell as a flight instructor. Clearly a master of the I-16, he shot down two Bf 109s and destroyed a third while strafing within weeks of joining the regiment.

Converting to the LaGG-3 in November 1942, Pylaev fought one of his most successful combats of the war on 3 June 1943 whilst leading a flight of six LaGGs. He was hoping for a quiet patrol over the Kuban, as the remaining five fighters in his formation were all flown by new pilots, none of whom had completed more than a dozen sorties. A short while into the patrol, Pylaev was ordered to engage a force of 100+ Ju 87s and Bf 109s that had been intercepted by a mere eight Yak-1s of 42 GIAP. The LaGG-3 pilots were instructed to go after the Stukas, leaving the Yaks to take on the escorts. Diving on the main group of Ju 87s, Pylaev shot down two dive-bombers on his first pass, and as one of these aircraft fell away, it collided with a third Stuka in their tight formation.

A LaGG-3 Series 66 of 88 IAP's 'Soviet Georgia' squadron, suitably decorated with a presentation inscription in Georgian script. This unit was just one of a number of regiments partially equipped with aircraft purchased with funds raised by the Georgian SSR. The inscription worn by the LaGG reads *Sabtchota Sakartvelo*, or 'Soviet Georgia'. The aircraft's individual numbering is unusual for its employment of three digits, the thickness of each digit and their location on the tail. 88 IAP became 88 GIAP on 5 February 1944, at which point it was still flying the LaGG-3. It finally re-equipped with La-5FNs three months later

As the first formation of Ju 87s jettisoned its bombs and scattered, Pylaev led his flight on to attack the second group. He destroyed his fourth Stuka moments later, and each of his five novices also managed to claim a kill apiece. No Soviet aircraft were lost.

In November 1943 Pylaev was promoted to captain and named Deputy Regiment Commander for Air Gunnery. By May 1944, when the regiment withdrew from the front to convert to the La-5, Pylaev had flown 285 missions. He had also engaged enemy aircraft 94 times, scoring 16 individual and four shared victories, plus at least one aircraft destroyed on the ground. Evgenii Pylaev received the HSU on 26 October 1944.

Another future ace to join 88 IAP in August 1942 was Lt Afanasii Lukin, who had completed flight training in 1939 and then been retained as an instructor. In November 1943 he was promoted to captain and made a squadron commander. On the 21st of that same month, Lukin led eight LaGG-3s into combat against a dozen Ju 87s, escorted by eight Bf 109s. In the ensuing air battle he personally downed two Stukas, while his pilots destroyed two more (and damaged a third), as well as a Bf 109. The unit suffered damage to a solitary LaGG-3 in return.

Afanasii Lukin was awarded the HSU on 26 October 1944 for completing 325 missions and 120 aerial combats, during which he had scored 14 individual and four group kills. At this time he was withdrawn from combat and sent to study at the Air Force Academy.

Pavel Kamozin completed flight training in 1938 and initially served as a flight instructor. Even as a cadet, his flying abilities were clear for all to see, and by June 1941 he was a junior lieutenant flying the I-153 with 269 IAP. Wounded in the foot on his very first combat sortie, Kamozin continued to see action with the Polikarpov biplane fighter until the regiment returned to the rear to re-equip with the LaGG-3. His remarkable skills were once

This photo supposedly shows Maj V I Melikhov (third from left), Sr Lt N V Aleksandrov, Capt M F Samozvantsev and Sr Lt V A Mikhailov of 9 IAP-ChF in May 1943. However, this information is incompatible with the terrain visible in the shot, the air force uniforms worn by the pilots and the HSU star on the pilot to Melikhov's right. The only individual to win such an award whilst serving with 9 IAP-ChF was Sr Lt V I Khryaev. Official records reveal that there was a Sr Lt Vladimir Alekseevich Mikhailov who received the HSU while flying the LaGG-3 with 163 GIAP, so these men are almost certainly from this unit (via G Petrov)



again noticed during 269 IAP's conversion, and he was commandeered to serve as an instructor. It would take Kamoziin a year to secure a transfer back to his regiment, and upon arriving in the frontline he celebrated by downing a Bf 109 over Tuapse in his first combat sortie.

On 19 July 1942 Kamoziin was leading five LaGG-3s over Shaumyan, in the North Caucasus, when his formation encountered six Bf 109s. He duly destroyed a Messerschmitt, and a second was shared by the rest of his flight, but the surviving German pilots summoned help by radio and a further 15 Bf 109s joined the fray. Kamoziin succeeded in destroying two more enemy fighters before his flight broke off the battle and returned home.

His leadership skills came into play once again on 7 October, when he led a formation of five LaGGs from his own regiment, together with two Yaks from 518 IAP. Intercepting 11 Ju 87s, escorted by four Bf 110s and six Bf 109s, Kamoziin and his wingman each shot down a single-seat Messerschmitt fighter on their first pass, while the other pilots claimed two Stukas destroyed. Six more Bf 109s then became embroiled in the action, and by the time this large aerial engagement had ended, Kamoziin had downed three Bf 109s. The Germans lost six Bf 109s and two Ju 87s overall, while the Russians had three fighters destroyed and a single pilot killed.

The following month Kamoziin managed to shoot down two more Bf 109s and a Bf 110. Awarded the HSU on 1 May 1943, he was promoted to the rank of captain that same month and transferred to P-39Q-equipped 66 IAP as a squadron commander. By then Kamoziin had completed more than 100 sorties in the LaGG-3 and scored 17 individual and seven group victories, making him the second most successful LaGG-3 pilot after Andrei Kulagin. Flying with 66 IAP, and subsequently 101 GIAP, the ace raised his wartime total to 200+ sorties, 70 aerial combats and 35 individual and 13 shared kills.

Dmitrii Tormakhov graduated from flying school as a sergeant pilot in June 1942, although he did not actually reach a combat unit until he was assigned to 269 IAP (then based at Lazarevskoe, north-west of Sochi) in January 1943. Soon after his arrival in the frontline, he had the good fortune to be picked by Pavel Kamoziin to fly as his wingman.

Tormakhov scored his first victory on 4 February when he shot down a Bf 109 north-west of Gelendzhik. He participated in one of his most memorable actions just 18 days later when his leader, Kamoziin, spotted two Bf 109s attacking a formation of Il-2s whilst returning from a patrol. Hurrying to their assistance, both pilots succeeded in drawing the Germans away from the ground attack aircraft. Kamoziin's first burst sent one of the Messerschmitts down trailing smoke, while the second machine vanished into the clouds.

Having successfully defended the Il-2s, both LaGG-3 pilots had set a course for home when suddenly the remaining Bf 109 reappeared astern of them and attacked Kamoziin. Tormakhov was caught out of position, and unable to engage the German, he instead shielded his leader with his own fighter. Kamoziin escaped but Tormakhov's LaGG was badly damaged, and it appeared as if the latter was finished when the Bf 109 settled in behind the ailing Russian machine and prepared to finish it off. However, Kamoziin had in turn succeeded in getting onto the Messerschmitt's tail, and he wasted no time in disposing off the persistent German pilot.



On 18 March Tormakhov was part of a formation of 269 IAP fighters sent aloft to intercept 27 Ju 87s that were heading for Gelendzhik at wave-top height. As the Soviet fighters attacked, a pair of Bf 109s intervened. One of them made a pass at Tormakhov but missed, ending up in front of the young Russian. Seizing his chance, he fired a long burst at the Bf 109, which was last seen heading westwards trailing white smoke. Tormakhov turned back towards the coast and immediately spotted the second Messerschmitt battling with two Yaks. Presented with a clear shot at the Bf 109, he sent the German fighter crashing into the sea.

Upon landing, Tormakhov was verbally attacked by Yak pilot Col M V Avdeev, who had been trying, together with his wingman, to force the already damaged Bf 109 to fly back to their base and land.

Tormakhov's next clash with enemy fighters occurred on 18 April 1943 at the end of a uneventful patrol with five other LaGG-3s. As the rest of the formation joined the circuit to land, Tormakhov thought that he should check to see if there were any German fighters using the sun to mask their approach – a favourite Luftwaffe tactic. Just as he did this, two Bf 109s dived on him, but Tormakhov had sufficient time to avoid their attack. Going on the offensive, he turned and followed them into their climb and soon had the wingman in his gunsight. His opening burst of fire sent the Bf 109 crashing into the ground (killing Unteroffizier H Pabst), and he hastily shot at the second Messerschmitt as his LaGG lost power in its near vertical climb. The second fighter fell away smoking, and Tormakhov was given credit for two kills – the second Bf 109, flown by high-scoring German ace Wolfgang Ettel, actually made it back to base.

Five days later 269 IAP was pulled out of the frontline, having been reduced to just six airworthy aircraft. Those machines, and their pilots (including Tormakhov), were transferred to 267 IAP, while the 'horseless' aviators from 269 IAP were withdrawn for reforming.

By now, Tormakhov had been in action for about three-and-a-half months, and in that time he had flown 90 sorties, fought 30 aerial combats and scored nine victories. He claimed his tenth kill in early May, and by rights his name should have been put forward as a candidate for the HSU at this point in his career. However, on 27 May 1943, before the documents were submitted, Tormakhov was shot

This LaGG-3 Series 29 was the regular mount of 267/269 IAP ace Dmitrii Tormakhov in the early months of 1943. It is in the standard green and black camouflage of the period, although its presentation of the side number is somewhat unusual. Originally serving with 269 IAP, Tormakhov and 'White 34' were transferred to 267 IAP when the former was deemed exhausted and sent to the rear in April 1943. A handful of other pilots who still had aircraft were also sent to 267 IAP as well. Tormakhov was almost certainly flying this machine when he was shot down in flames on 27 May 1943. Although badly burned, he survived his wounds to return to combat three months later. By war's end Tormakhov had claimed 14 and two shared kills, as well as numerous strafing victories (via G Petrov)

down in flames while escorting Il-2s on his 99th mission and listed by his regiment as 'missing in action'.

The young ace had in fact baled out of his burning fighter after steering it back over friendly territory. With the skin burned off both hands, Tormakhov came down in a minefield and had to be rescued by Soviet troops. Confined to a hospital bed for the next two months, by the time Tormakhov returned to his regiment, in August, it had re-equipped with Yak-7Bs and been sent to the Ukraine. Tormakhov would remain a Yak pilot to war's end, seeing his final combat over Yugoslavia.

By then he had flown 366 sorties, of which 34 were ground attack, 86 reconnaissance and 186 *shturmovik* escort missions. He had fought German aircraft on 71 separate occasions, claiming 14 individual (eight Bf 109s, two He 111s and an Fw 190, Me 210, Ju 87 and Ju 88) and two shared victories (a Bf 109 and an Fw 190) and two aircraft (a Bf 109 and a Ju 52/3m) destroyed on the ground. Tormakhov had also destroyed 20 railway trucks, 18 vehicles and eight trailers. Although he was nominated for the HSU in February 1945, the award was not approved because Tormakhov had not dramatically increased his score since his last nomination, regardless of the fact that his important ground strafing missions had prevented him from encountering German aircraft in the air.

Finally, to underscore the fact that a LaGG-3 could indeed be dangerous when flown to its strengths, one only has to examine the career of barely-known ace Arkadii Sukov, who proved to be both an ace killer and an unrecognised 'burr under the saddle' of *Jagdgeschwader* 54. Not much is known about him, save that in May 1942 he was a captain flying the LaGG-3 with 41 IAP on the Volkhov Front. On the 22nd of that month 47-kill ace Leutnant Otto-Bruno Lörzer (the son of the famous World War 1 ace) of II./JG 54 disappeared whilst on a sortie north-east of Kirisha when his flight of eight Bf 109s became embroiled in a fight with Il-2s. The Germans were bounced by number of LaGG-3s during the course of the engagement, and flight commander Snr Lt Arkadii Sukov described attacking a Bf 109 which spun into a lake and exploded.

Sukov was again in the thick of the action on 9 August 1942, when his ailing LaGG-3 was set upon by a solitary Bf 109. Having told his formation commander about the state of his misfiring engine, and been given permission to return to base, Sukov had just broken formation and dived for home when he spotted tracers flying past him. Successfully evading his enemy's surprise attack, he now found the Bf 109 in his gunsight as the German pilot shot past him. Sukov's marksmanship was better than his foe's, and a short burst of fire from the LaGG's powerful armament was enough to down Knight's Cross winner Oberleutnant Max-Helmut Ostermann, who was both the CO of 7./JG 54 and a 102-kill ace.

On 18 September 1942 Sukov was leading a formation of LaGG-3s escorting Il-2s from 448 ShAP (Assault Aviation Regiment) when they were intercepted by eight Bf 109s north of Tosno Station. In the ensuing melee, the Soviets suffered no losses, while Sukov managed to shoot down yet another Knight's Cross winner in the form of Hauptmann Herbert Findeisen of II./JG 54, the 67-kill ace baling out and being captured.

In early November 41 IAP exchanged its LaGG-3 for Yak-7s, and on the 11th of that month Sukov used his new mount to telling effect during a lone 'free hunt' mission near Bolshaya Visherya. Approaching



Forced down on 14 September 1942 and captured by the Finns, LaGG-3 Series 35 of 524 IAP was quickly repaired and put back into Finnish service with the serial LG-3 (via G Petrov)

Finnish ace Eino Koskinen tests the engine in LG-3 at Immola in March/April 1943 following its overhaul at the local field air depot. Assigned to LeLv 32, Koskinen was the only Finnish pilot to claim a kill flying a captured LaGG-3 in the defence of his homeland. Ironically, he downed a Russian LaGG-3 on 16 February 1944 in LG-1 (Paavo Saari via Kari Stenman)



the frontline, he spotted a pair of Bf 109s trying to sneak into Soviet territory at low altitude. Sukov attacked from above, catching the Germans by surprise, and he duly shot one of them down. The defeated pilot was Knight's Cross winner Hans-Joachim Heyer (54 victories) of III./JG 54.

There is no information pertaining to Sukov's activities in 1943-44, and it is possible that he spent part of

this time recuperating in hospital from wounds suffered in combat. He is next mentioned in a combat report dated 17 December 1944, by which time he had been promoted to captain and was flying La-5s with 254 IAP. On that date he shot down an Fw 190 over the Gulf of Riga, its pilot, 52-kill ace Oberfeldwebel Heinrich Wefers, baling out but not returning to his unit – he probably drowned.

Sukov was in action again on 3 January 1945 when the formation of fighters he was leading as escorts for a group of Pe-2s was intercepted near Libau by Fw 190s from JG 54. The Russian ace succeeded in shooting down the last of his 12 Fw 190 kills during the engagement, Sukov remembering his victim as being an outstanding pilot, but one who was too eager to get at the bombers and failed to check his tail. Sukov was able to hit the Fw 190's engine from a distance, and its pilot, Knight's Cross winner Leutnant Hans-Joachim Kroshinski (76 kills), CO of 3./JG 54, baled out of his smoking fighter with serious wounds.

In addition to the 12 Fw 190s downed by Sukov, he also destroyed at least four Bf 109s – it is extremely likely that he may have also downed other Messerschmitt fighters not flown by aces, and possibly several bombers as well. Those victories definitely credited to him are most impressive nonetheless, as the tally includes six aces with an aggregate score of 397 kills and four Knight's Crosses!

FIGHTING FOR THE OTHER SIDE

In February 1942 LaGG-3 Series 4 'Red 29' force-landed inside Finnish lines, and after being repaired, it was given the serial LG-1 and assigned to *Lentolaivue* (LeLv) 32, which at the time was equipped mainly

with Curtiss H-75 Hawks. LaGG-3 Series 1 'Red 33' also forced-landed in Finnish territory in the early spring of that same year, and after repair and repainting, it too was sent to LeLv 32 as LG-2. Finally, on 14 September 1942 LaGG-3 Series 35 'White 57' was captured with minor damage. After being repaired, it was assigned serial LG-3 and sent to LeLv 32.

The Finnish LaGGs were used primarily in attempts to intercept



Soviet Pe-2 reconnaissance aircraft – a task at which they enjoyed no success whatsoever. Indeed, the only aircraft destroyed by a Finnish LaGG-3 was, ironically, a Soviet LaGG-3, which fell to LG-1 on 16 February 1944. Its pilot on this occasion was ace Lentomestari (Wt Off) Eino Koskinen, who already had 11 and one shared kills to his credit flying the H-75. He was scrambled at 1045 hrs and told to intercept a Pe-2, escorted by two LaGG-3s. His combat report for the mission read as follows;

‘I met the Pe-2 and its LaGG-3 escorts north-west of Kinkiyeva. I was some 200 metres below the formation, and I had just set about attacking the Pe-2s when the LaGG-3s noticed me and the leader turned in my direction. We drove at each other, but when the second LaGG got behind my tail, I was forced to evade. The leading LaGG again came straight back at me, and I fired again. My target went into a dive and disappeared from the fight.

‘The second LaGG was by now behind me once again, and after dodging his first burst we commenced a turning battle, during which I managed to hit the Russian fighter, causing its starboard landing gear to drop down. The Russian tried his hardest to turn inside me until he eventually gave up and dived for the ground. I chased after him and caught up with the LaGG just as it overflew the Svir monastery. My single burst of fire caused the fighter to emit a cloud of black smoke, but it continued to flee at tree-top height across the countryside. In the end the pilot climbed to a height of roughly 50 metres, before crashing into the forest, port wing first.

‘The Russian pilots had fought bravely, and the two of them had kept me away from the Pe-2. My fighter suffered no damage.’

LG-3 is seen ‘in the field’ in early 1944 at an unnamed Finnish base (via G Petrov)

Wt Off Eino Koskinen sits in the cockpit of LG-3 in March 1943. Both he and the captured LaGG-3s were assigned to 2/LeLv 32, based in Nurmoila, on the Olonets Peninsula. This photograph was taken by Koskinen’s flight leader, Aulis Bremer (via Kari Stenman)



La-5 - THE BREED IMPROVES

As early as 1941, Semyon Lavochkin had begun work on marrying up the fuselage of a standard LaGG-3 with Shevtsov's ubiquitous M-82 radial engine following a request from the Ministry of Aircraft Production. The latter was concerned about production problems then afflicting the Klimov powerplant, resulting in engine shortages. By contrast, there were surplus M-82s sitting around due to over production for the Sukhoi Su-2 bomber. Lavochkin also realised that the radial engine produced considerably more horsepower than Klimov's inline M-105, so he was keen to find a way to mate the M-82 with the LaGG.

Development continued into early 1942, and although engineers succeeded in fitting the bulky radial engine to the slender fuselage, it created more drag and further limited the already poor forward vision for the pilot, particularly when taxiing. Yet despite the increased weight and drag of the M-82, the first prototype attained a maximum speed of 372 mph in level flight – some 37 mph faster than a production LaGG-3. Once operational equipment was fitted, this top speed fell back to 360 mph. Following the completion of testing the La-5 was rushed into production, and the first series aircraft were delivered on 20 June 1942.

In addition to improved speed, the new fighter also featured increased armament in the form of two synchronised 20 mm ShVAK cannon.

As previously mentioned, the M-82 engine decreased forward visibility, but it improved the pilot's chances of survival because of its ability to absorb combat damage. However, the heavier powerplant mounted on the now shortened LaGG-3 fuselage (the M-82 was more compact than the M-105) changed the fighter's centre of gravity, in spite of design efforts to minimise this. The new La-5 was much more of a handful to fly, and the M-82's torque also gave the Lavochkin a tendency to pull to the

An La-5F of 3 GIAP-KBF commences its take-off run on the dirt strip on Lavenassri Island in the summer of 1944 (via G Petrov)





Fresh-faced groundcrewmen are instructed on the inner workings of an ASH-82F *forsirovannyi* ('boosted') radial engine fitted to an La-5F (via G Petrov)

This La-5 has had the armoured-glass of its windscreen inexplicably decorated with 'snowflakes'! (via G Petrov)



right – this trait was never rectified, even in the more refined La-7.

The La-5 boasted a superior rate of climb and improved horizontal manoeuvrability in comparison with the LaGG-3, although its agility in the vertical plane was somewhat diminished.

Problems caused by the LaGG's notoriously short range were solved in the La-5 by the fitment of five fuel tanks, giving increased range, but at a cost in speed and flight control sluggishness. Ranking Soviet ace Ivan Kozhedub remembers that when he first went to the front, as a

new pilot he was given a five-tank La-5, which all combat pilots in his unit knew was inferior to the three-tank equivalent. Later production batches reverted to three fuel tanks. Other significant improvements relating to the fuel system were the addition of self-sealing tanks and the injection of cleaned and cooled inert exhaust gasses into the tanks as fire protection.

Like the LaGG-3, the La-5 was blighted by engine oil splashing all over the cockpit transparency. However, a problem unique to the M-82 was the engine's tendency towards 'supercooling', which sometimes led to stalls and power failure. On the other hand, the engine occasionally overheated, resulting in blown cylinder heads. Faced with these problems, pilots often chose to fly with their canopies back, as in the LaGG-3, and also with their tailwheels down and the side cooling flaps fully open. All these things created still more drag, and lowered the La-5's top speed. Therefore, for all of its improvement, the La-5 was still inferior to its main rival, the Bf 109F.

In late 1942, the improved ASH-82F *forsirovannyi* ('boosted') engine was introduced, giving the fighter better performance above 5000 ft. These powerplants were first trialled with the La-5 in late December 1942, and resulted in the La-5F entering production at Gorkii the following month – the first examples began reaching frontline units in March.

Aside from the application of a Cyrillic 'F' to the engine cowling, there was no visual distinction 'up front' between a standard La-5 and an ASH-82F-powered variant. The most obvious visual difference between the two types centred on the adoption of a new canopy for the re-engined machine. The windscreen had a changed shape, and was now fitted with armoured glass. The rear fuselage had also been cut down and a clear streamlined rear canopy provided, giving the pilot 360-degree visibility.

A close up of the La-5F's distinctive exhaust vent, which differed significantly from the vent fitted to the ...

... La-5FN, seen here. Note the early version of the FN nose marking, which preceded Lavochkin's more familiar diamond motif (both via G Petrov)



Snr Lt Konstantin Savel'evich Nazimov flew La-5s with 254 IAP, and he was awarded the HSU for scoring 24 individual and two group victories. He was killed in action on 23 December 1944 (via V Petrov)

Airframe construction also varied due to a shortage of resin, which meant that many delta-drevsina components were replaced by regular pine, making them larger and thicker, but also lighter. Finally, in an effort to save even more weight, the dreaded five fuel tanks were reduced to three.

Even as the La-5F entered production, Lavochkin was introducing further engine improvements. The ASh-82FN boasted direct fuel injection, and this was adopted for the La-5FN, which was visually distinguished by its longer and higher

air scoop above the nose for the supercharger. There were also changes made to the cockpit and side exhausts, all of which combined to boost the fighter's speed to 385 mph. Manoeuvrability and handling showed some improvement too, although problems still persisted. Exhaust gasses still tended to enter the cockpit, which continued to be overheated by the engine, forcing pilots to fly with open canopies despite the negative drag.

Yet even with all these maladies, pilots still felt that they finally had a fighter which could catch its opponents at operational altitudes, compete in all areas of vertical and horizontal combat and get on the tail of any German aircraft within one turn.

The first regiment to receive the La-5 was 49 IAP, which had been virtually destroyed in 1941 fighting on the Northwestern Front with I-16 and LaGG-3 fighters. After receiving La-5s, the unit returned to the front in August 1942. During 49 IAP's first weeks of combat, its pilots claimed 16 victories for the loss of ten aircraft, demonstrating that the La-5 was still not equal to its German opponents.

Another of the early regiments to receive the La-5 was 3 GIAP. It had fought as 155 IAP on the Northern Front until 6 December 1941, when awarded the Guards designation. In August 1942 the unit re-equipped

with La-5s from the first production batch, and in November it was assigned to the Supreme Reserve for the Stalingrad counter-offensive.

One of 3 GIAP's most famous pilots was Pyotr Bazanov, who graduated from flying school in May 1942 and was assigned to the regiment in August when it reformed on the La-5. At the end of October 3 GIAP was sent back to the Kalinin Front, but just a few days later it was ordered south to the Stalingrad Front to take part in the Red Army's autumn counter-offensive.

Bazanov's first victory came on 5 December when he caught a Ju 52/3m which crashed virtually on his own airfield. This kill was particularly welcomed by the regiment as its load consisted of bread, honey and cigarettes! Later that same day he downed a second Junkers tri-motor, and on 11 December, while flying a ground support mission, 3 GIAP encountered a formation of 18 Ju 52/3ms flying without fighter escort. Bazanov claimed three more.

His next victory came on 22 February 1943 during the battle for Rostov-on-Don. Returning from a mission, Bazanov saw two Bf 109s attacking a Boston, and although he arrived too late to save the bomber, he gave chase after the German fighters turned for home. He succeeded in shooting one of the Bf 109s down, its wounded pilot baling out and being taken to a Soviet hospital upon landing.

On 1 May 3 GIAP was redeployed to the Kuban just in time to participate in one of the decisive air battles of the war. In the first seven days following his arrival, Bazanov flew 45 missions and scored two more victories over Bf 109s, but on 9 May he was seriously wounded, barely making it back to his airfield to belly-land his badly damaged La-5. The ace spent several months in hospital, only returning to the regiment after the Battle of Kursk had been won by the Red Army.

Capt Bazanov received the HSU on 26 October 1944. During the spring of 1945 3 GIAP re-equipped with the La-7 and then returned to the front, although its pilots saw little further aerial combat due to the lack of opposition in its area. Pyotr Bazanov ended his war at Oberglogau, having flown 362 mission, fought in 62 aerial combats and claimed 22 individual and six group victories.

Perhaps the most famous regiment to fly the La-5 was 5 GIAP, which became the second highest scoring Soviet IAP with 739 aerial



Konstantin Savel'evich Nazimov (right) is given his Communist Party Card by a squadronmate whilst standing next to his La-5F. Membership to the party was reserved for those who had proven themselves in combat (via G Petrov)

40 GIAP's Capt Dmitrii Pavlovich Nazarenko (left) and Lt Konstantin Afanas'evich Novikov congratulate each other on their recent combat successes. Nazarenko scored 24 individual and eight group victories while Novikov scored 30 individual and six group kills. Both men are wearing their HSU medals, which means that this photograph must have been taken after these awards were made in May 1943. The La-5 behind them clearly belongs to an ace, but which one remains unclear (via V Petrov)





This La-5, bearing the inscription *Eskadrilya named for Hero of the Soviet Union Aleksandr Chekalin*, was assigned to 960 IAP, which boasted a number of expatriate Spanish pilots within its ranks. It is believed that this photograph shows one of them, Francisco Merono (via G Petrov)

victories for the loss of just 89 pilots (36 in air combat, seven to flak, 16 in flying accidents, seven killed on the ground and 23 missing). The unit boasted almost 50 aces, 22 HSUs and two double HSUs.

5 GIAP had begun the war as 129 IAP, flying the I-16 and MiG-3. On 6 December 1941 it was redesignated as a Guards Regiment, and a few days later the unit was withdrawn from the frontline in order to re-equip with the LaGG-3. Once converted, the regiment deployed to the Kalinin Front, where it remained until withdrawn at the

end of November 1942 in order to rebuild and re-equip with the La-5. Rushed back into action for the Stalingrad counter-offensive, 5 GIAP served as a component of the high command reserve, shifting from front to front in support of the main campaigns, until war's end.

One of the regiment's early aces was Vasilii Zaitsev, a 30-year-old squadron commander when war broke out in the east. By the end of August, when the remnants of his unit were merged into 129 IAP, he had claimed six kills. Zaitsev had been promoted to major and appointed regiment navigator in December 1941, and on the 29th of that month he led 12 LaGGs against three dozen Ju 88s. He emerged from the action with two kills, whilst his pilots claimed a further nine.

By January 1942 Zaitsev had flown 115 sorties and shot down 12 aircraft in 16 combats – this success saw him awarded the HSU on 5 May 1942. Four months later he was promoted to lieutenant colonel and given command of 5 GIAP.

In early November the unit was withdrawn in preparation for its receipt of new pilots and La-5s. 5 GIAP returned to the front north of Stalingrad on 15 December, and in the winter of 1942–43, Zaitsev led the regiment in 'free hunt' missions as part of the air blockade of the beleaguered city. The CO himself claimed six of the regiment's 45 victories during this period.

One of 5 GIAP's most successful days over Stalingrad came on 10 March 1943. Zaitsev was leading a patrol of six La-5s covering ground forces in the area when they encountered a formation of three Fw 189 observation and artillery spotting aircraft. First, Zaitsev had his pilots disrupt the formation, and then he sent in pairs of fighters to chase them down one at a time. All three were destroyed. In the midst of this action the 5 GIAP pilots received calls from two Il-2s under attack by German fighters. Not yet finished with the much-hated Focke-Wulfs, Zaitsev sent Kiyachenko's pair to aid the *shturmoviks*.

Shortly after driving off the German fighters and finishing the Fw 189s, Zaitsev found another prize in the form of a group of Ju 87s without escorts. He shot down two of them and his pilots claimed five more.

By August 1943 Zaitsev had completed 299 flights and claimed 22 aircraft destroyed. He was awarded his second HSU on 24 August 1943,

in the midst of a difficult spell for the regiment.

During the Kharkov operation the Luftwaffe had made strenuous attempts to regain air superiority, mounting a series of air attacks by waves of 40-50 bombers, with 20-30 fighter escorts, between 15-19 August. On the 17th alone, 5 GIAP flew 96 sorties and fought five aerial battles, shooting down 17 enemy aircraft and damaging five more.

During this five-day period the regiment lost six pilots killed and had two more wounded – a quarter of its establishment strength – and even more aircraft shot down or damaged too badly for field repair. These losses did not prevent 5 GIAP from claiming its 500th victory at month-end, however. The regiment was withdrawn in early September so as to make good its losses in personnel and to receive more aircraft. The latter took the form of new La-5FNs. Following a month-long re-equipment programme, 5 GIAP returned to the front and helped secure the Dnepr crossing, which led to the liberation of Kiev and the Zaporozh'e basin.

On 5 April 1944 Zaitsev was made Deputy Commander of 11 GIAD (Guards Fighter Aviation Division), although he often chose to fly with his old regiment. The ace scored his last kill in February 1945 while flying a white-nosed La-7 over Dresden. By the end of the war Vasilii Zaitsev had completed 427 sorties and 163 aerial combats, scoring 34 individual and 19 shared victories in the air and two on the ground.

One of the first VVS aces of World War 2 also saw much service with 5 GIAP, Vasilii Efremov having been credited with seven victories against the Finns during the Winter War of 1939-40. In June 1941 he was



Maj Ivan V Pavlov of 137 GIAP poses with his ornately decorated La-5FN in 1944. Little is known about him except that he scored at least eight victories (*via G Petrov*)

Although most sources have linked this famous La-5 (seen here near war's end) with Georgii Kostylev and his service with 3 GIAP, he in fact flew only older aircraft whilst with the regiment. In reality, the ace flew this La-5 only after joining 4 GIAP-KBF in late August 1943. Aside from its dramatic mouth, the fighter also boasts a guards badge beneath the cockpit which has had the standard banner titling *Gvardiia* (Guards) replaced with the word *Slava* (Glory) (*via G Petrov*)



assigned to 133 IAP, but transferred to 129 IAP just weeks later. By December, when the regiment was redesignated 5 GIAP, Efremov had already flown 172 sorties and scored a further five kills. He was promoted to captain and received the HSU on 5 May 1942.

Some weeks earlier, on 21 March, Efremov had participated in one of the regiment's epic battles. Leading a patrol of five LaGGs assigned to provide air cover to the army near Gladovo-Tarutino, they met a formation of 30 German bombers – Ju 88s, followed by He 111s, with Ju 87s at the end, all in one formation. By now well experienced in combat, Efremov and his pilots attacked out of the sun, shooting down two Heinkels in their first pass. The remaining He 111s jettisoned their bombs and formed a defensive circle, while the other bombers scattered. The latter were hotly pursued by the La-5 pilots, and they downed two more before German fighters could intervene.

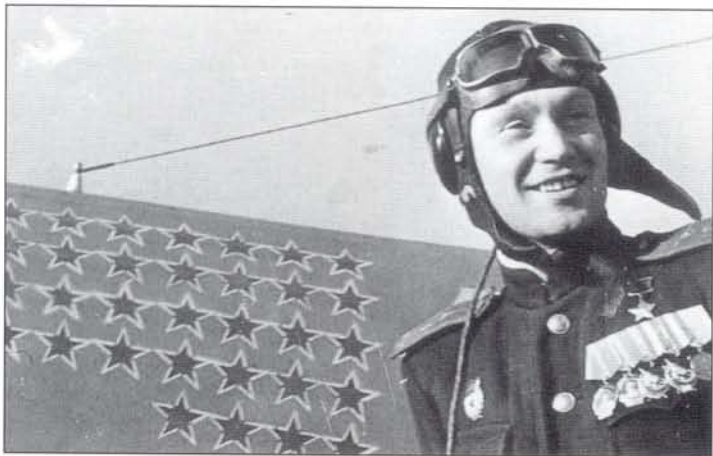
When the Messerschmitt escorts did finally arrive, Efremov and two other pilots took them on, leaving the remaining pair to continue their harassment of the bombers. Efremov shot down a Bf 109, Laveikin got a Bf 110 and Zhurin claimed another bomber. With their ammunition expended the Russians retired, having scored seven victories for no losses in a battle witnessed by senior commanders on the ground. Congratulations and confirmation of victories preceded them back to their airfield, and Efremov was promoted to major and appointed commander of his squadron soon afterwards.

On 30 July 1942, during the first day of the Kalinin Front's Rzhev-Sychevskii operation, Efremov shot down three aircraft. Three days later he destroyed a Bf 109. His next combat almost proved to be his last when a Bf 109 got on his tail while he was pursuing another Messerschmitt fighter. With his LaGG-3 being pounded by enemy gunfire, Efremov's fate appeared to be sealed until his wingman (and future ranking 5 GIAP ace), Sgt Vitalii Popkov, bravely positioned his own fighter between the pursuing Bf 109 and his leader's machine.

By war's end Vasilii Efremov had completed 401 sorties and claimed 12 victories, five of which may possibly have been shared kills, in addition to his seven Winter War successes.

As previously mentioned, 5 GIAP's leading ace was Vitalii Popkov, who had joined the regiment on the Kalinin Front on 15 May 1942 as a sergeant pilot. At this time the regiment was equipped with the LaGG-3, but was short of aircraft. One rainy day, Popkov's squadron commander, Vasilii Efremov, caught the new arrival in the cockpit of his LaGG examining its controls. After initial outrage, and some questioning, Efremov agreed to let Popkov fly the aircraft as his 'relief pilot', thus keeping the aeroplane in the air more of the time. The men also became known in the regiment as the 'identical twins' through the sharing of this single aircraft.

Georgii Dmitrievich Kostylev poses alongside an La-5 that has been marked with 32 victory stars. The style and positioning of the latter clearly reveal that this aircraft is not 'White 15', seen on the previous page (via G Petrov)





Georgii Kostylev was not the only ace to fly an La-5 adorned with a mouth, as this photograph proves. Flown by a pilot named Alpatov (his christian name remains unknown), a careful examination of this shot reveals that the mouth on this machine is both narrower and possessed of rounded teeth. Little is known about Alpatov, except that he transferred to the Baltic from the Pacific Ocean Air Fleet and scored about ten victories (via G Petrov)

As soon as Popkov got his own LaGG, he became Efremov's wingman, and he soon made his mark by downing a Ju 88 over Kholm in early June – he destroyed a second bomber a few days later. In August he was flying as wingman for Maj Efremov when he spotted and shot down a Bf 109. Moments later, in the action related earlier in this chapter, Popkov saw another Messerschmitt on Maj Efremov's tail. Diving to the rescue, he interposed his own fighter between the two protagonists and took the enemy's fire for his leader. His engine soon burst into flames and Popkov baled out, although his parachute failed to open properly. Fortunately, he plummeted into a swamp and was not badly hurt.

5 GIAP was withdrawn from the front to convert to the new La-5 at the end of November 1942, and Popkov immediately fell in love with the Lavochkin fighter. His tally of victories quickly started to increase once the unit had returned to action – he shot down two Bf 109s on 23 June, and followed this up on 10 July with two bombers destroyed over Kursk. Thirteen days later Popkov took part in a major air battle that began when Sergei Glinkin's alert flight, together with a handful of Yak-1s, intercepted a formation of nine Ju 87s. The Germans sent six Bf 109s to their assistance, which were in turn met by a second flight of Yaks. When the Luftwaffe again raised the ante with another 16 Bf 109s, Popkov's flight and another formation of Yaks were also despatched.

By the end of the fight, the Russians had claimed ten aircraft destroyed and three damaged, although 5 GIAP had itself lost two pilots. Popkov's share comprised a Bf 109 shot down and another fighter damaged. His victory was all the more significant because it was one of the first new Bf 109G-2s with underwing cannon gondolas to be seen in the east.

By August 1943 Popkov had flown 168 missions and shot down 17 aircraft in 45 aerial combats. One of his July victories was scored in a particularly difficult duel with a Bf 109 from JG 53. Popkov tussled with his opponent long enough at close range to notice that his aircraft had a white spiral on an orange spinner, orange wingtips and two insignias – an ace of spades (the *geschwader* emblem) and a small boat blown by the wind (probably the *gruppe* or *staffel* marking). He noted in his post-mission report that these markings probably indicated that his foe was a major German ace, hence the pilot's exceptional flying skill.

On 3 August Popkov again tussled with Bf 109s, shooting one down just prior to his own fighter being mortally damaged by his victim's wingman. With his La-5 on fire, the ace baled out, but not before he had suffered burns. After returning from a brief convalescence, Popkov was promoted to captain and made commander of the first squadron. On 28 August he scored two more victories, but narrowly missed the honour of claiming 5 GIAP's 500th kill. He was awarded the HSU on 8 September 1943.

With promotion came the added responsibilities of command, Popkov now having to both lead and train his squadron – once again he rose to the task. A case in point was his treatment of Evgenii Sorokin, a new pilot assigned to his squadron who seemed to avoid combat. The regiment commander asked Popkov whether Sorokin should be removed from flying duty and expelled from 5 GIAP. Instead, the ace made the new arrival his own wingman, and with Popkov's coaching, he turned into a successful fighter pilot with seven victories by war's end.



Col Vasilii Fyodorovich Golubev served with 4 GIAP-KBF, flying the thoroughly obsolete I-16 until April 1943, when the regiment received the La-5. The ace completed 589 sorties and claimed at least 39 individual and 12 group victories, although there is some dispute amongst historians over his final tally (via G Petrov)

The inscription on this La-5F is not completely clear, although it does establish that it was presented to ace Maj Pyotr Nikiforovich Belyasnik. Serving with 126 IAP, Belyasnik scored nine individual and 17 group victories, and was awarded the HSU in 1943. Note that at least three victory stars have been painted over the fighter's side number (via G Petrov)

the bombers, Popkov and his flight attacked the Germans from above and downed two fighters in their first pass – these were claimed by Popkov and Pchyolkin. The remaining 13 Bf 109s then set about downing the four La-5s.

Eventually, two of the Lavochkins broke off to follow the bombers home, leaving Popkov and Pchyolkin to cover their withdrawal. Two more Bf 109s were shot down before the Russians ran out of ammunition, forcing them to fly a series of dummy attacking passes on the remaining Messerschmitts until they could flee into a nearby bank of cloud.

In mid February 1945, as Soviet forces drew nearer to Berlin, 5 GIAP relocated to Shprotau. Here, the regiment's main opponents were Fw 190s, although bombers also made the occasional appearance. For example, on 17 April Popkov destroyed a Ju 88 over Berlin by ramming it, the ace then nursing his damaged La-5 back to base. He scored his last kill – an Fw 190 – more conventionally on May Day. The regiment then moved south to support Soviet troops in their offensive against German forces that were making a last-ditch stand in Czechoslovakia. On 12 May Popkov flew his 535th, and last, mission over Prague. He had fought in 117 aerial combats and scored 41 individual and one shared victories. On 27 June 1945 Popkov was awarded his second HSU. Six years later Vitalii



Popkov saw more action flying a MiG-15 over Korea, where he scored three kills against American combat aircraft.

Fellow 5 GIAP ace Aleksandr Masterkov finished his flying training in 1941 and was retained as an instructor. Here he stayed for over a year, before finally joining the Guards regiment in November 1942 just as it was committed to the Stalingrad counter-offensive. By then Masterkov was already a senior lieutenant.

In March 1943 he had the distinction of forcing down the first Fw 190 to be captured by 17 Air Army. Eight months later 5 GIAP was presented with two La-5Fs, named *Vesyolye rebyata* ('The Jolly Fellows'), by Leonid Utesov's famous Jazz Orchestra, and Masterkov was assigned one of these machines. By March 1945 he had flown 195 combat sorties (many of them in the named La-5F) and claimed 18 aircraft destroyed during the course of 40 aerial engagements.

Masterkov scored his final kills on 18 February 1945, when his flight of four La-5s engaged a formation of 24 enemy aircraft over Guben. He shot down two Ju 88s and destroyed a third by ramming (one of the last ramming attacks of the war). Aleksandr Masterkov was shot down and killed by flak on 23 March 1945 while dive-bombing a train near Bautzen. He was posthumously awarded the HSU on 27 June 1945.

The son of a Soviet diplomat, 5 GIAP ace Georgii Baevskii was born in Rostov-on-Don, and from 1931 his family lived in Berlin and then Stockholm. Curiously, while living in Germany Baevskii became acquainted with future German ace Wilhelm Bartz, although there is no evidence to suggest that they ever encountered each other during the war. After returning to the Soviet Union, Baevskii joined the army and completed flying training in November 1940. Like Aleksandr Masterkov, he was retained as an instructor until 'loaned' to 5 GIAP in April 1943 due to a shortage of pilots. When sent into action, Baevskii's unit had been told that he was to return to instructing after 30 days in the frontline, but 5 GIAP was unwilling to let him go – they simply kept him!

When he arrived in the frontline, Baevskii had 732 flying hours in his log book, including 230 hours in the I-16 and four-and-a-half hours in the La-5. At this stage in the war the average Soviet replacement pilot had completed about 80 hours of flying by the time he reached a combat unit.



People's Artist Leonid Utesov (left) presents La-5F "*Vesyolye Rebyata*" to 5 GIAP in November 1943.

The individual in uniform is a representative from the VVS's supreme headquarters. This aircraft was one of two presentation La-5Fs paid for by Utesov's Jazz Orchestra and issued to 5 GIAP in the spring of 1943. Utesov and his 'big band' were among Soviet Russia's most popular musicians, famed for their 1934 film *Vesyolye Rebyata* (*Jolly Fellows*), which is also the inscription painted beneath the cockpit. Both La-5Fs survived with 5 GIAP into 1945 (via G Petrov)

This right side view of *Vesyolye Rebyata* was also taken at the presentation ceremony in November 1943. The inscription on this side reads "*Ot dzhaz-orkestra L. Utesova*" (Leonid Utesov's Jazz Orchestra) (via G Petrov)



Baevskii flew his first sortie on 21 April 1943 when he provided fighter escort for Boston bombers, although the Luftwaffe chose not to intercept his charges. The future ace wrote in his diary that 'This devil isn't so terrifying after all', but his view of the enemy changed 72 hours later. Baevskii and his wingman Bykovskii were manning the readiness flight on this day when the airfield was attacked without warning by a large formation of Bf 110s, with four Bf 109s as escorts. The Russian pilots hastily scrambled and Baevskii became separated from his wingman soon after take-off. He fought desperately, but expended all his ammunition without hitting anything, and prior to regaining contact with his wingman – Bykovskii had, in the meantime, been shot down over his own airfield. Baevskii managed to land unharmed.

His first victory came on 8 May, when Baevskii was flying one of six La-5s, led by Laveikin, which were engaged by 20 German aircraft. As the aerial battle commenced, Baevskii spotted a lone Fw 189 below the mass of swirling fighters and quickly shot it down, before rejoining the battle against the Bf 109s. He also shot one of the latter down as well. Upon returning to base, Baevskii received credit for the Bf 109, but not the Fw 189. A subsequent review of German records revealed that no Bf 109s had been lost in that sector of the front on that day, but that 3(H)/14 had indeed lost an Fw 189, its crew escaping by parachute.

In August the battle for Kursk evolved into the Belgorod-Kharkov counteroffensive, and in five days of heavy fighting between the 15th and the 20th, 5 GIAP regularly clashed with the Luftwaffe as the Germans mounted a series of bombing attacks in support of troops on the ground. Each formation typically numbered 40 to 50 bombers, escorted by 20-30 escorting Bf 109s.

On 15 August Baevskii shot down a He 111, and two days later he destroyed another Heinkel bomber and a Bf 109. However, during the latter engagement his La-5 was badly shot up by a second Messerschmitt. Initially blinded, and feeling a sticky wet liquid covering his face, Baevskii feared the worst until he could wipe his eyes and regain his sight – he was covered in oil, not blood as he had feared. After landing, the ace discovered that things could have been far worse, for single shells had almost severed his control column and damaged his parachute.

A rare air-to-air photograph of an La-5F from an unidentified unit flying over the central front in the late summer of 1943. Note that the pilot has the canopy slid back – a practice routinely adopted by pilots patrolling the frontline at medium to low level in the warm summer months (via G Petrov)



Baevskii had only just begun to smoke, and still did not drink (he gave his daily ration of 100 grams to his squadronmates), earning him the nickname 'White Raven'. However, that evening after cheating death in combat, his CO, Col Zaitsev told the other pilots to 'let him be. Today he needs the ration himself', and ordered Baevskii to drink.

At the end of August Baevskii shot down yet another He 111 and a Bf 109. During the two months of the Kursk and Kharkov operations, he had scored ten confirmed and several unconfirmed kills.

In September 5 GIAP was withdrawn for a month to receive replacement pilots and the new La-5FN. Thanks to the latter type's increased performance, the regiment briefly enjoyed the upper hand over its opponents, who thought that they were engaging standard La-5s. Indeed, in late October regimental pilots interrogated a German ace that they had shot down, Baevskii, fluent in German, acting as interpreter. At the end of the interview the captured pilot asked to see the aeroplane which had shot him down, and when shown, the German exclaimed 'That cannot be! It's an La-5, and that could never catch me'.

Upon returning to the front, 5 GIAP took part in the Dnepr crossing, and the subsequent liberation of Kiev. Baevskii was promoted to senior lieutenant at this time and made squadron navigator. He was also granted the right to lead 'free hunt' missions.

On 14 October, the regiment flew one of its first missions in the La-5FN, and Baevskii was given the responsibility of leading the first, and lowest, flight in a squadron-strength mission led by Laveikin. Encountering a mixed formation of 13 Ju 88s and 25 Ju 87s, and their escorts, the Russians succeeded in getting through the fighters unscathed to down three bombers – two Bf 109s were also destroyed.

The next day saw a dogfight take place between nine Bf 109s and a flight of La-5FNs, Baevskii succeeding in downing a solitary Messerschmitt fighter. Three more victories would follow by the end of November.

On 12 December Baevskii and his wingman, Pyotr Kal'sin (16 victories), set out on a 'free hunt' over German territory. As they approached the airfield at Apostolovo, Baevskii spotted an Fw 189 in the circuit getting ready to land. He quickly attacked and shot it down on his first pass, but not before the Focke-Wulf's rear gunner had managed to hit the La-5FN's engine with a single burst. Unable to make it home, the ace landed in a nearby field.

For Baevskii, this situation was even more hazardous than for most Soviet pilots, since he had lived amongst the Nazis while growing up. Were he to disappear, NKVD paranoia would certainly see him labelled an enemy agent, with horrible consequences for both his family and his wartime comrades! Minutes after crash-landing, Kal'sin landed his own La-5 on the snowy field and Baevskii squeezed into the cockpit and was flown home. Sadly, Pyotr Kal'sin was posted missing in action just eight days later.

Following his ordeal of 12 December, Baevskii was sent to recuperate in a hospital in Moscow, after which he enjoyed a spell of home leave. Having flown 144 sorties, and survived 45 aerial combats, Baevskii had shot down 17 aircraft. On 4 February 1944, while at home with his parents, the ace learned that he had received the HSU.

Initially placed on restricted flying duty by his doctors following his release from hospital, Baevskii was soon reunited with his regiment. However, he suffered further serious injuries in a crash in March while ferrying new La-5s from the factory, the ace being forced to land on a road strewn with tank traps when he ran low on fuel in bad weather. Unconscious for five days, Baevskii again struggled back to fitness by late June.

Most of the missions now flown by 5 GIAP saw the regiment escorting bombers and *shturmoviks* without encountering significant Luftwaffe opposition. This was reflected in Baevskii's combat record, which had seen him engaging enemy aircraft on no fewer than 45 occasions in his first eight months in combat in 1943. During his nine months in the frontline in 1944-45, he fought just seven aerial combats. One of the latter took place on 28 February 1945 when Baevskii shot down two Fw 190s over Cortbus.

In April 1945 Baevskii briefly flew the Yak-9U, but decided that he preferred the La-5FN. He was also checked out in the La-7, but said that it offered too little advance over the excellent La-5FN, and that he had 'expected more'. Georgii Baevskii undertook his last mission, near Prague, on 8 May, this taking his tally to 252 sorties. He scored 19 victories in 52 aerial combats.

One of 129 IAP's most experienced pilots at the time of the German invasion in June 1941 was Grigorii Onufrienko, who had fought over Finland before his posting to the unit. During the first months of the war Onufrienko scored 11 victories with the MiG-3 prior to the regiment converting to the LaGG-3.

His first successes with the new fighter came on 5 December when he and several other pilots intercepted a raid by Ju 88s – Onufrienko shot down one of the five bombers claimed. Two days later he added a Ju 87 to his list of victims, this engagement taking place minutes after the regiment had been presented with its new Guards banner. During the ceremony to mark this occasion, Onufrienko, as the regiment's best pilot, served as the colour-bearer. As the formalities were ending, 5 GIAP was ordered into the air to intercept a formation of incoming Stukas. The Russians arrived a little late, by which time the first formation of Ju 87s had already dropped its bombs. Moments later, however, a second formation appeared, and this one was intercepted prior to any dive-bombing attacks being launched. Several more waves of Stukas followed, and the fuel-expired 5 GIAP pilots were duly replaced by newly scrambled aircraft. The regiment would score 11 kills during the course of the day.

On 12 April 1942 Onufrienko was awarded the HSU. Four months later he was sent to command 31 IAP, which flew the LaGG-3 and various models of the La-5/7. The regiment operated over the Ukraine, taking part in the Jassy-Kishinev campaign in August 1944, and finishing the war flying over Budapest.

Maj Aleksandr Georgievich Pavlov (left), commander of 41 GIAP, discusses his latest kill with Snr Lt Aleksandr Vasil'evich Lobanov soon after landing back at base. Pavlov scored 20 individual and 16 shared victories and Lobanov 26 individual and 14 shared kills. Both men received the HSU in 1943 (via G Petrov)



By VE-Day Lt Col Grigori Onufrienko had completed 505 missions and scored 21 individual and 29 shared victories.

Nikolai Krasnov joined the Red Army in 1930 at the age of 16 and went on to complete flying training. Upon leaving the service in the late 1930s, he gained employment as a civil test pilot. In June 1941 Krasnov rejoined the air force and was sent to 402 IAP, which was staffed by test pilots flying MiG-3s. During August and September he shot down four German aircraft before being so seriously wounded that he spent five months in hospital. During these first combats Krasnov displayed what would be his trademark style. He preferred to get in as close to his opponent as possible – 20-30 metres or less – before opening fire, preferably from the side and below. When Krasnov returned to duty in March 1942, he was sent to 116 IAP on the Bryansk Front.

On 31 May Krasnov experienced one of his most dangerous sorties yet. Leading a flight of seven LaGGs escorting eight Il-2s in an attack on an airfield near Kursk, his formation was intercepted by Bf 109s. Krasnov soon destroyed one of the enemy fighters, but his own aircraft was badly damaged by a second Messerschmitt. Wounded in the leg, he was forced to land behind German lines. After setting fire to his aircraft, Krasnov disappeared into the forest and eventually made it back to Soviet territory some nine days later.

By July 1943 he had been promoted to major, and given command of a squadron within 116 IAP. With his own score growing, Krasnov also made sure that he devoted plenty of time to perfecting the 'science' of air combat, and teaching his new pilots how to fight effectively. This in turn led to his unit claiming 71 enemy aircraft shot down for the loss of just three La-5s between 5 July and 15 October 1943. Krasnov made a significant contribution to this total, scoring no fewer than 11 victories in the fighting to liberate Zaporozh'e, seven of which were claimed between 10-14 October. He had also scored two victories on the night of 9-10 October.

By December 1943 Krasnov had flown 279 missions, and in 85 aerial battles had shot down 31 aircraft. The following month 295 IAD organised a special squadron composed of the division's best pilots, and they were exclusively tasked with seeking out and destroying enemy aircraft. Nikolai Krasnov was given command of the unit, dubbed 'The

Hunters', and on 4 February (the same day that he received the HSU) he destroyed three Ju 52/3m transports during the course of two sorties.

In March Krasnov was transferred to 31 IAP as deputy regiment commander following the disbandment of 'The Hunters'. It seems that while the special squadron had been outstandingly successful, the regular units within 295 IAD had suffered a sharp increase in losses due to the absence of their most experienced pilots.

Flying gear removed, Maj Pavlov and Snr Lt Lobanov pose for a more official photograph. The heart-marked La-5FN seen in the background of both shots has previously been identified as the aircraft assigned to Pavlov, although it seems unlikely that he would let another pilot pose in it, as is the case in this photo, if it was indeed his La-5FN (via G Petrov)



Capt Nikolai Skomorokhov was 31 IAP's most famous ace, for he completed a staggering 605 missions and fought in 143 aerial combats. Claiming 46 individual and eight shared victories (he also destroyed three aircraft on the ground), Skomorokhov was never wounded in combat and none of his many LaGGs and Lavochkins (he is seen here in an La-5) were ever damaged in action (via G Petrov)



Krasnov's final run of successes occurred during the aerial battles over Budapest towards the end of the war, the veteran ace scoring eight victories in 26 combats.

On 29 January 1945 he was test-flying a fighter over his airfield when he spotted an enemy bomber nearby. Not having any ammunition for his guns, Krasnov rammed the aircraft and was killed. His final combat record is uncertain, although according to the commander of 31 IAP, by February 1944 Krasnov had flown 324 sorties, fought in over 100 aerial combats and claimed 44 kills. With the additional victories scored later, his final score must be at least 52 victories, although ten of these may be shared kills.

Aside from Nikolai Fyodorovich Krasnov, 31 IAP's most famous ace was Nikolai Skomorokhov. After completing basic flying training in March 1942, he was sent to a reserve regiment for further training, and only in November of that year was he finally posted to LaGG-3-equipped 164 IAP, based at Adler, in the North Caucasus.

Skomorokhov was almost killed on one of his early sorties, having allowed himself to become separated from his group. All alone, he was bounced by a gaggle of Bf 109s, and he had to rely on his natural abilities as a pilot to extricate him from a potentially fatal situation. Turning sharply and then diving away, he succeeded in scurrying home unscathed.

In January 1943 Skomorokhov scored his first kill when he downed an Fw 189 north of Lazarevskoe. By March he had added a Ju 87 and a Bf 109 to his tally. That same month 164 IAP received the La-5.

In either May or June 1943 Skomorokhov was transferred to 31 IAP, where he benefited from the careful coaching of regiment commander Col Grigori Onufrienko, who was better known as a teacher of aces than for his own score of 21 victories. On 14 June Skomorokhov downed two Fw 190s in a single sortie.

In early 1944 Skomorokhov was one of those selected to serve in Nikolai Krasnov's special 'hunter' unit, and when he returned to 31 IAP upon its disbandment, he was promoted to captain and made commander of the first squadron. During the Jassy-Kishinev offensive in August 1944, Skomorokhov was entrusted with flying escort for Marshal Zhukov's Li-2 transport.

At the end of the year the division redeployed northward into Hungary, and in December 1944, over Szekesfehervarhe, Skomorokhov

fought a long lone duel against a German ace at an altitude of 9000 metres. On the third head-on attack, he managed to shoot down the Bf 109, whose pilot baled out and was captured. A few days later Skomorokhov and his wingman, Filippov, flew their first sortie in the La-7. Intercepting a large formation of Fw 190s, Skomorokhov downed three of the 'Fokkers', while his wingman got two more.

By the end of December he had flown 483 sorties and scored 25 individual and eight group victories



Lt Col Pyotr Afanas'evich Pokryshev (left), Commander of 159 IAP, listens intently to an order being read out to his men. Although he is perhaps best known for his exploits in the Kittyhawk, Pokryshev commanded La-5-equipped 159 IAP from July 1943 through to war's end. By then he had flown 309 sorties and claimed 31 individual and seven group victories, for which he was twice awarded the HSU (via G Petrov)

during the course of 104 aerial combats. Skomorokhov was awarded the HSU on 22 February 1945 (he received a second HSU on 18 August 1945), and in late March he completed his 520th mission, during which he destroyed his 35th aircraft. On 10 April 1945 the ace tangled with three Fw 190s over Herasdorf, downing all of them in just a matter of minutes. Skomorokhov scored his final victory on 1 May when he downed yet another Fw 190, this time over Brno.

By war's end Nikolai Skomorokhov had flown 605 missions, fought in 143 aerial combats and scored 46 individual and eight shared victories – he had also destroyed three aircraft on the ground. Skomorokhov was never wounded, and none of his numerous LaGGs and Lavochkins were ever damaged in aerial combat.

Another high-scoring unit to fly the La-5 was 159 IAP, which had converted onto the Lavochkin fighter from the Kittyhawk rather than the LaGG-3. The regiment had started the war equipped with a mix of I-16s and MiG-3s, and it spent the entire conflict fighting on the Leningrad and Volkhov Fronts. 159 IAP is noted for having flown many of the *Valerii Chkalov Eskadrilya* La-5s, including both the original La-5 and the La-5F, and it ended the war equipped with La-5FNs.

The leading ace of 159 IAP was Vladimir Serov, who was rushed through flying training in 1941. Quite unprepared for combat when he joined the unit in April 1942, Sgt Serov was lucky to have a squadron commander who allowed him to fly patrols well behind Soviet lines, and spent time instructing him on how best handle the I-16 in combat. Such a gradual introduction to operations in the difficult spring of 1942 was an unusual luxury that few new pilots got to enjoy. Indeed, most were thrown straight into action with as little as 20 flying hours in their logbooks.

Such nurturing paid off, for Serov shot down a Ju 88 and a

159 IAP's Vladimir Serov was yet another famous ace to fly an La-5 inscribed with *Valerii Chkalov Eskadrilya* titling. This aircraft was one of 13 identically-marked La-5s issued to the regiment, which was then in action over the northern Ukraine, in the spring of 1943. Other *Valerii Chkalov Eskadrilya* aircraft were also sent to 166 IAP, 32 GIAP and 4 GIAP-KBF. Aside from being flown by Vladimir Serov, these machines were also used by fellow 159 IAP aces Pyotr Likholetov and Ivan Kozhedub (via G Petrov)



Bf 109, and was appointed a flight commander, within months of first seeing combat. He in turn became involved in the welfare of the pilots under his command, and spent time training newcomers.

On 8 February 1944 he shot down a Ju 87 and an Fw 190, and by April he had been promoted to senior lieutenant and deputy squadron commander. On the 7th of that month he intercepted a formation of 20 Ju 87s, leading a head-on attack which dispersed the formation. Serov then shot down the formation leader, and his pilots claimed two more Stukas destroyed.

He continued to score freely as spring turned into summer, and in June alone he claimed eight victories. The last of these came on the 26th over Zelenogorsk, on the Karelian Isthmus. Serov, at the head of a zveno of four La-5s, encountered two flights of four Finnish Bf 109Gs, one of which was acting as bait and the other as cover. Serov attacked the first group and easily destroyed one of the Messerschmitts, but the covering flight then engaged the Russians and immediately downed the second pair of Lavochkins, followed by his wingman.

Fighting for his life, Serov took on the seven remaining enemy fighters and reportedly shot down a second Bf 109 before exhausting his ammunition. In a final act of defiance, the ace then rammed a third Finnish fighter and perished in the process. The aircraft he collided with was Bf 109G MT-434, flown by seven-victory ace Nils Trontti, who baled out and was captured. Vladimir Serov flew about 300 sorties and participated in 104 aerial combats, scoring 39 individual and eight shared victories. He was posthumously awarded the HSU on 2 August 1944.

159 IAP's second ranking ace was Viktor Zotov, who completed his flying training in 1940 and was involved in fighting in the east from the very first days of the German invasion. Little is known about his early combat career, although he was a lieutenant flying with 159 IAP by May 1942. On the 28th of that month he claimed a Ju 88 destroyed.

Zotov's next significant action came over a year later on 19 June 1943 when the patrol that he was leading was engaged by a group of Bf 109s. He claimed two Messerschmitts destroyed, the second of which he shot off his wingman's tail. After disengaging and turning for home, Zotov spotted an enemy reconnaissance aeroplane. Although already low on

A 159 IAP Valerii Chkalov Eskadrilya La-5 taxis across an unidentified airfield on the Karelian Front in the late summer of 1943 (via G Petrov)



fuel, he attacked and shot it down, and then made it back to base with his tanks almost dry.

By October 1943 Zotov had attained the rank of senior lieutenant, and was deputy squadron commander. He had completed 336 sorties, and in 87 aerial combats had scored 17 individual and ten group victories, for which he was awarded the HSU on 4 February 1944. By the end of the war Viktor Zotov had completed 750 missions and scored 28 individual and ten shared victories.

Fellow 159 IAP ace Pyotr Likholetov joined the VVS pre-war and fought over Finland during the Winter War of 1939-40. By June 1941 he was a member of 159 IAP, and he scored his first victory on 12 July. His hardest battle occurred at the end of March 1942 when his flight of six P-40s was bounced by a larger group of Bf 109s, which shot down the aircraft flown by Prudnikov and Verenikhin. Likholetov was able to destroy two of the German fighters before saving the rest of his flight and escaping at tree-top height. The loss of two of his friends would haunt Likholetov for the rest of his life.

By mid October 1943 Likholetov had become a captain and squadron CO, and had also begun flying a *Valerii Chkalov Eskadrilya* La-5 – he switched to an La-5FN in 1944. Awarded the HSU on 4 February 1944, Pyotr Likholetov's final score was 25 individual and five shared kills, achieved in 382 sorties and 78 aerial combats. Injured in combat in the final days of the war, he died of his wounds on 13 July 1945.

ONE DAY WONDER

For much of his career Aleksandr Gorovets was an ordinary pilot, but one day over Kursk in July 1943 he achieved a feat unequalled in the VVS. By then he was already an 'old man' of 28 years, having joined the army in 1932 and subsequently learned to fly as a civilian following his discharge.



Pyotr Yakovlevich Likholetov of 159 IAP was one of the first pilots in the regiment to be given a *Valerii Chkalov Eskadrilya* La-5, although he is better known for his La-5FN *For Vaska and Zhora*, which replaced the earlier Lavochkin fighter in 1944 (via G Petrov)

This 159 IAP La-5F establishes that there was an ongoing series of *Valerii Chkalov Eskadrilya* Lavochkin fighters of various sub-types donated to the VVS between 1943-45. Note the identically-inscribed La-5 parked behind this machine (via G Petrov)



Working as a flying instructor from 1935 until he was recalled to service in June 1941, Gorovets was predictably sent to a flying school to teach. He was kept out of the frontline until July 1942, when he was sent to LaGG-3-equipped 166 IAP. The unit subsequently converted to the La-5, Gorovets flying 'White 11', which was a *Valerii Chkalov Eskadriya* aircraft.

On 21 May 1943 the regiment became 88 GIAP, and by 5 July Gorovets had flown 73 sorties and scored two individual and six shared victories in ten combats. However, his next, and last, flight was epic. Gorovets was returning from a mission over Kursk on 6 July when he noticed a large group of Ju 87s approaching the Soviet frontline. Unable to alert the rest of his flight, he turned his La-5 toward the lead group of 20 Stukas. In the battle that followed, Gorovets destroyed nine Ju 87s before he was himself shot down and killed. He was posthumously awarded the HSU on 28 September 1943.

Col Aleksandr Semyonov was yet another veteran pilot serving in the VVS when Germany invaded in June 1941. A division commander, he had scored one individual and three shared victories in Spain whilst fighting for the Republicans during the civil war of the late 1930s. Semyonov then saw action in the Winter War against Finland, where he flew 75 missions and shot down four Finnish aircraft in just five aerial engagements. Semyonov was awarded the HSU on 21 March 1940 for his exploits in both campaigns.

He saw combat with 122 and 180 IAPs on the Western Front during the summer and autumn of 1941, during which time he and his men were repeatedly forced to abandon airfields at the last minute, sometimes leaving them cut off from higher headquarters. On one occasion in mid-October Semyonov's squadron had to abandon its base at Rzhev and rely on out of date maps to find a safe landing area further east. He barely managed to avoid capture during this escape when he landed at an airfield on the outskirts of Kalinin, only to find that the Germans had beaten him there. He took off again in the nick of time. Minutes later Semyonov's regiment commander enjoyed less good fortune when he climbed out of the cockpit and was captured, the engine in his fighter still turning over.

Totally depleted by month-end, 180 IAP was withdrawn to re-equip with the LaGG-3 and then thrown back into the battle for Moscow. During this hard-fought opening period of the war, Semyonov gained five individual and several shared victories.

In January 1942 he was sent on a four-month course that prepared squadron commanders for regimental leadership. Semyonov was duly promoted to major in May, but to his surprise, and initial disappointment, he was assigned to the Air Force Inspectorate rather than a frontline regiment. He quickly discovered that this was not a rear-headquarters 'paper pushing' job as he had initially feared, for the new air force commander, Gen Novikov, was radically restructuring the air force. This included the revitalising of the Office of the Inspectorate, with officers assigned expected to spend their time in the field working and flying with operational regiments, helping the crews learn to fight successfully, developing tactics and evaluating the skill of unit commanders. They were to also inform headquarters of recommended modifications to aircraft, as well as innovations in tactics. Of course this (*text continues on page 58*)

COLOUR PLATES



1

LaGG-3 Series 1 'White 54' of Capt Aleksandr Zaitsev, 145 IAP, Karelian Front, August 1941



2

LaGG-3 Series 1 'White 76' of Capt Leonid Gal'chenko, 145 IAP, Karelian Front, late autumn 1941



3

LaGG-3 Series 1 of Maj Leonid Gal'chenko, 609 IAP, Karelian Front, summer 1942



4

LaGG-3 Series 11 'White 78' of Capt Viktor Mironov, 609 IAP, Karelian Front, summer 1942



5

LaGG-3 Series 35 'Yellow 6' of Capt Gerasim Grigor'ev, 178 IAP, autumn 1942



6

LaGG-3 Series 29 'Red 52' of Snr Lt Tikhon Zhuchkov, 3 GIAP-KBF, winter 1943



7

LaGG-3 Series 29 'Red 59' of Capt Igor Kabarov, 3 GIAP-KBF, winter 1943



8

LaGG-3 Series 29 'Red 30' of Capt Semyon L'vov, 3 GIAP-KBF, winter 1943



9

LaGG-3 Series 29 'White 34' of Jnr Lt Dmitrii Tormakhov, 269 and 267 IAP, North Caucasus, spring 1943



10

LaGG-3 Series 4 'Black LG-1' of Wt Off Eino Koskinen, 2/HLeLv 32, summer 1944



11

LaGG-3 Series 66 'White 43' of Yurii Shchipov(?), 9 IAP-ChF, Crimea, spring 1944



12

LaGG-3 Series 66 'White 932' (pilot unknown) of 88 IAP, North Caucasus Front, summer 1943



13

La-5 'White 66' (pilot unknown) of *Eskadrilya Valerii Chkalov*, 159 IAP, Karelian Front, near Leningrad, spring 1943



14

La-5 'Yellow 40' (pilot unknown) of *Eskadrilya Valerii Chkalov*, 4 GIAP-KBF, near Leningrad, summer 1943



15

La-5 (pilot unknown) of the *Eskadrilya Aleksandr Chekalin*, 960 IAP, Moscow Air Defence District, February 1943



16

La-5 'White 84' of Vicente Beltran, 960 IAP, Bryansk Front, May 1943



17

La-5 'White 15' of Capt Georgii Kostylev, 4 GIAP-KBF, late summer 1943



18

La-5F 'White 14' "Vesolye Rebyata" of Snr Lt Aleksandr Masterkov, 5 GIAP, November 1943



19

La-5F of Maj Leonid Gal'chenko, Deputy Commander 324 IAD, Karelia, 1944



20

La-5F 'White 20' of Capt Ivan Khaustov, 21 IAP, Baltic region, summer 1944



21

La-5FN 'White 68' of Snr Lt Georgii Baevskii, 5 GIAP, Ukraine, December 1943



22

La-5FN 'White 62' of Snr Lt Georgii Baevskii, 5 GIAP, July 1944



23

La-5FN 'White 14' of Capt Ivan Kozhedub, Snr Lt Pavel Bryzgalov and Capt Kirill Evstigneev, 240 IAP (later 178 GIAP), May 1944 through to May 1945



24

La-5FN 'White 52' Mongol'skii Arat of Capt Nikolai Pushkin, 2 GIAP, September 1943



25

La-5FN 'White 01' of Capt Vitalii Ivanovich Popkov, 5 GIAP, autumn 1944



26

La-5FN 'Silver 15' of Capt Pyotr Likholetov, 159 IAP, Karelian Front, summer 1944



27

La-5FN 'White 93' of Capt Vladimir Orekhov, 32 GIAP, summer 1943



28

La-7 'White 27' of Maj Ivan Kozhedub, 176 GIAP, Germany, late April 1945



29

La-7 'White 18' of Maj Aleksandr Kumanichkin, 176 GIAP, Germany, February 1945



30

La-7 'White 23' of Maj Aleksandr Orekhov, 32 GIAP, Germany, early 1945



31

La-7 'White 93' of Lt Col Sergei Dolgushin, 156 IAP, Germany, April 1945



32

La-7 'White 17', flown by Maj Vladimir Lavrinenkov, CO of 9 GIAP, East Prussia, December 1944



33

La-7 'White 23' of Capt Pavel Golovachyov, 9 GIAP, East Prussia, December 1944



34

La-7 'White 24' of Maj Sultan Amet-Khan, 9 GIAP, East Prussia, December 1944



35

La-7 'White 14' of Capt Aleksei Alelyukhin, Deputy CO of 9 GIAP, East Prussia, December 1944



36

La-7 'White 33' of Capt Pyotr Bazanov, 3 GIAP, Germany, spring 1945

Pilots sit and listen to 159 IAP's political officer at an airfield on the Karelian Front in the high summer of 1944. Parked behind them is Pyotr Likholetov's La-5FN 'Silver 15'. This was the ace's famous *For Vaska and Zhora* machine, its slogan being partially obscured by a fir tree in the foreground. This titling, which was also applied in silver, appeared on both sides of the fuselage. The inscription commemorated two of Likholetov's flightmates who had been killed during a particularly bloody engagement in March 1942 while the regiment was flying Kittyhawks (via G Petrov)



meant that Semyonov had to master all types of fighter aircraft then in service, and be familiar with the best tactics for each machine.

Inspectorate officers were representatives of the high command, with plenary powers. The Fighter Aviation Office of the Inspectorate under Lt Col Yakushin initially had nine pilots assigned to it, including Semyonov, whose first job was to work with 434 IAP. The unit was then in the process of re-equipping with both the Yak-1 and a new crop of pilots. After overseeing the regiment's conversion onto the Yakovlev fighter, Semyonov accompanied 434 IAP to the front, where he remained until October 1942. During this period he made a major contribution to the unit's outstanding success in combat.

In January 1943 Semyonov was assigned to the reconstituted Main Administration for Combat Training of the VVS – pilots chosen for this unit were experienced and combat-proven aviators. Organised into a special regiment for administrative purposes, they would spend three weeks of each month travelling to frontline regiments to assist with the training and the solution of operational problems. Semyonov and his colleagues would also share their combat experiences with new pilots working their way through the training regiments. This unit operated all the standard VVS fighter aircraft, and some captured enemy types as well.

Semyonov's first assignment was typical, he and three other pilots being sent to Gen Blagoveshchenskii's 2 IAK (Fighter Aviation Corps), which was having difficulty successfully introducing the La-5 into service. In February he went to 286 IAD (another Lavochkin division), which had been suffering unexplainably heavy losses in air combat. One of the division's regiments, 896 IAP, had shot down fewer than 21 enemy aircraft for the loss of 18 La-5s in air combat during the previous six months.

A good close-up view of Likholetov's La-5FN. While the use of metallic paint is unfamiliar in the West, in the Soviet Union aluminium paint was available in quantity, as it was used as a primer and, pre-war, as an overall finish (via G Petrov)



Following a two-week intensive training and studying programme with Semyonov, 896 IAP claimed 17 kills for a single loss in just 14 days. Other assignments followed for Semyonov throughout the rest of 1943, the ace visiting frontline and training units as the VVS redefined its fighter tactics.

Finally, in February 1944 Semyonov was promoted and given command of 32 GIAP (formerly 434 IAP), which was now equipped with the La-5FN. This reunited the veteran pilot with many of his old friends. Soon after his arrival, Semyonov was faced with a major problem when his proven pilots were returning from their sorties reporting that they could not find any sign of Luftwaffe activity. It appeared that all aerial opposition had vanished. Meanwhile, the army began to complain bitterly about the inadequacy of air cover over the frontline, which was allowing the Germans to bomb the Red Army with impunity. How could these assertions be reconciled?

Semyonov sent Maj Garanin to the front to observe for himself and report back what was truly happening. The answer emerged quickly enough. As long as the Soviet fighter patrols orbited over the frontline, there was no activity, but moments after they turned for home with low fuel, the German bombers appeared at low level, dropped their bombs and vanished back behind their own lines. The next day, when the regular patrol went up, Semyonov accompanied it at the head of an extra flight of four fighters. Flying at normal altitude, they went off in the opposite direction to the patrolling La-5s and crossed the frontline some 40 km further south. Diving down to near ground level, the four Lavochkins flew deep into enemy territory before turning back to approach the regiment's patrol line at tree-top height from the rear.

Sure enough, they spotted a formation of 20 Ju 87s flying without escort since they expected no opposition. Semyonov's flight zoomed to gain altitude and then dived on the Stukas, attacking from the rear. In just a few moments four Ju 87s had been destroyed and the survivors thoroughly scattered.

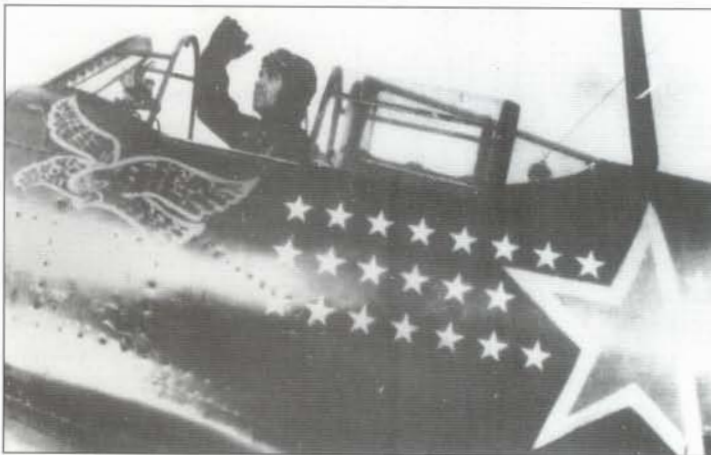
From then on VVS fighter units changed their policy to provide overlapping air cover. The Soviets also began to deploy their first primitive field radar systems at around this time, these giving fighter units a modicum of advanced warning.

Semyonov remained with 32 GIAP for only a brief period, being reassigned as deputy commander of



Pilots from an unidentified regiment stage a briefing for an official photographer in front of a victory-decorated La-5FN (via G Petrov)

A cockpit and pilot close-up of the La-5FN seen above. To date, it has proven impossible to identify this pilot, although with 22 victories to his credit, he certainly must be well known (via G Petrov)





Formerly a standard La-5F, this La-5UTI trainer was created by the removal of a fuselage fuel tank and the fitment of a second seat and extra cockpit glazing. Photographed on the Leningrad Front in late 1943, it was one of only a handful of two-seat Lavochkin fighters made available to would-be La-5 pilots, who often found the aircraft's high landing speed and excessive propeller torque difficult to handle in the early stages of their conversion onto the fighter (via G Petrov)

3 GIAD in early May 1944. In mid-November he was given command of 322 IAD, this experienced fighter division having recently suffered a rash of accidents with the La-5 and La-7. This was an old and familiar problem for Semyonov, who had seen it before when helping introduce the La-5 at the end of 1942. Too many pilots were damaging their aircraft in rough landings, which in turn proved impossible to repair due to the fighter's wooden construction. The problem was that while the La-5 was an excellent fighter, it boasted a high approach and landing speed, which meant that the pilot had to be watchful all the way to the ground.

As with most frontline fighters in World War 2, few two-seat La-5s were produced as trainers for would-be Lavochkin pilots. Indeed, within 2 Air Army there were initially only two La-5UTIs, and they were scarcely used. However, Semyonov managed to obtain another six examples and put them to work. His determination to improve the standard of the flying within his unit was emphasised when he had one of his pilot transferred to an Il-2 regiment to serve as a gunner after he had the misfortune of crashing his Lavochkin in front of Semyonov during a training landing!

Another tactical innovation attributed to Semyonov was the painting of the cowlings of 322 IAD's La-5s, these being resprayed blood red as far back as the engine firewall. His reasoning behind this marking change was that it made the division's aircraft more easily recognisable to VVS pilots – particularly those new to the frontline – who often mistook the Lavochkin fighter for the Fw 190 in the heat of battle. It also meant that pilots and commanders could more readily distinguish the La-5s of their own air division from those assigned to other Soviet formations, thus enhancing tactical control.

The Vistula-Oder offensive opened on 12 January 1945, and 322 IAD was heavily engaged, flying both ground support and fighter missions. Six days later the regiment's 2 GIAP and 482 IAP relocated to a forward airfield that was so close to the frontline that they were within range of German field artillery – several aircraft suffered minor damage during a series of barrages. The division was subsequently ordered to move to newly-captured airfields at least three more times as it struggled to keep up with the advancing troops of the 1 Ukrainian Front.

On 3 May Semyonov performed his last flight over Berlin, his division being ordered to support the drive on Prague the very next day. This campaign came to an end on the 9th when all German forces laid down their arms in unconditional surrender.

During 1945 alone, 322 IAD pilots had flown 4369 combat sorties and claimed 152 aerial victories. Between 1941 and 1945, Aleksandr Semyonov had completed 240 missions and scored 15 individual and 12 shared victories (in addition to the kills he had claimed in Spain and Finland) in 65 aerial combats.

The best regiment in Semyonov's 322 IAD was 2 GIAP, which had operated the LaGG-3 since early 1942, and was noted for its *Mongol'skii Arat* squadron. One of the unit's leading aces was Nikolai Pushkin, who saw combat from June 1941, scoring several victories while flying the I-16. Already a senior lieutenant by May 1942, he was transferred to 2 GIAP and appointed commander of the regiment's second squadron about a month after his arrival.

On one of Pushkin's early missions with the unit, his reconnaissance flight of four LaGG-3s was attacked by ten Bf 109s. Fighting the German machines for some 45 minutes, Pushkin emerged with two victory claims, and all the LaGG pilots made it safely back to base.

In October 1942 2 GIAP received its first La-5s, and by May of the following year Pushkin had completed 380 missions and seen aerial combat on 52 occasions. His score then standing at seven individual and eight group kills, he was awarded the HSU on 2 September 1943 and promoted to captain. On the 25th of that same month 13 La-5FNs that had been bought with funds contributed by the people of Mongolia were presented to his squadron, which was officially named the *Mongol'skii Arat*.

In July 1944 Nikolai Pushkin became deputy commander of the regiment, and by war's end he had flown 490 sorties and fought in 75 aerial combats, scoring 19 individual and eight shared victories.

240 IAP

Another classic Lavochkin regiment of the VVS was 240 IAP, which later became 178 GIAP on 19 August 1944. Equipped with the I-15bis on the Northwest Front until November 1941, the by then decimated unit spent the next six months rebuilding with the LaGG-3, before returning to action in June 1942 on the Western Front. Later that year the regiment received the La-5, and by the end of 1942 it had to be withdrawn once again in order to make good its combat losses.

Although 240 IAP had a number of pilots who achieved aceship with either the LaGG-3 or the early La-5, the regiment's real run of success began in 1943 when it received both the La-5F and an influx of new pilots, many of whom would attain glory in combat.

Undoubtedly the best of this new bunch was aeroclub-trained Ivan Kozhedub, who was sent to a military flying school in late January 1940. His ability as a pilot was obvious from the word go, although his marksmanship left something to be desired, as he was singled out for his poor performance in his first air gunnery exercise. His instructor reassured Kozhedub, however, telling him not to lose heart as the great ace Valerii Chkalov had also begun his military career as a poor marksman, but had practiced and became a master.

Maj Aleksandr Ivanovich Maiorov stands in the cockpit of his La-5FN of the *Mongol'skii Arat* Squadron, which was part of 2 GIAP. His aircraft, which bears the *Mongol'skii Arat* titling beneath the cockpit, was one of 13 La-5FNs whose construction was funded by the workers of Mongolia, and which were in turn issued to 2 GIAP on 25 September 1943. Maiorov was awarded the HSU just 23 days prior to the arrival of this machine in the frontline, and by the end of the war he had flown 460 missions and fought 68 aerial combats, scoring 17 individual and ten shared victories (via G Petrov)





Kozhedub completed his training in February 1941 and was retained as an instructor. He remained in this role until the autumn of 1942, when one of his repeated requests for frontline duty was finally accepted. Sgt Kozhedub was amongst the group of pilots selected to serve with 240 IAP, as was fellow future ace Kirill Evstigneev. During conversion training, both men had a chance to inspect a pair of captured Bf 109s, and Kozhedub made a point of memorising the appearance and size of the German fighter from a distance of 100 metres.

In late February 1943 240 IAP received its own dedication aircraft, each of which was inscribed *Eskadrilya Valerii Chkalov*. Kozhedub's first La-5 was 'White 75', which he quickly became disappointed with because it boasted five fuel tanks, thus making it slower and less manoeuvrable than the more common three tank aircraft.

The following month 240 IAP returned to the frontline, and during its first missions the regiment's pilots scored a number of successes, but at a high price. Like many of the new combat pilots, Kozhedub had a close brush with death on his very first sortie, which took place in early March. Soon after taking off with his flight on a defensive patrol of a nearby airfield, Kozhedub was left behind by his pairs leader in his appreciably slower La-5. Pressing on, he decided to protect the airfield alone if necessary, and moments later he saw six aircraft, which he initially misidentified as Pe-2s. Soon realising that they were Bf 110s, Kozhedub dived on them.

Remembering to check his tail just prior to firing at the closest Messerschmitt, he was alarmed to see two more Bf 110s immediately behind him. The fighter-destroyers opened fire, and although the Russian took violent evasive action, his aircraft was badly shot up. Worse was to follow when Soviet flak batteries inflicted further damage on his crippled fighter as he struggled to land.

Although his aircraft was subsequently repaired, it was barely capable of combat, and Kozhedub only got to fly when he could borrow an aircraft from someone else. In fact, he flew so little that he was almost transferred out of the regiment! Kozhedub's squadron commander eventually led a number of pilots, including Kozhedub, to the rear to collect new fighters.

Assigned to an unknown regiment, this La-5FN was photographed soon after it had belly-landed at its base in the late summer of 1944. In the background can be seen several lend-lease P-47D 'bubble tops', which look huge in comparison with the La-5s parked alongside them (via G Petrov)



Proudly wearing his HSU star and other medals, Ivan Kozhedub of 240 IAP strikes a pose in the cockpit of his La-5FN *Ot kholkhoznika Koneva* (via G Petrov)

The regiment continued to suffer heavy losses, however, and by June Kozhedub had been promoted to junior lieutenant and made deputy squadron commander, despite having not yet scored a single victory. Such was the rate of attrition within his squadron that virtually everyone else was less experienced than him. The regiment's CO and all three squadron commanders had been killed, resulting in the promotion of relatively junior officers such as Kozhedub, who would now have a wingman of his own.

He was assigned Vasilii Mukhin, who became his inseparable companion on the ground and in the air. Eventually an ace in his own right, Mukhin finished the war with 19 victories and the HSU.

Kozhedub finally scored his first kill on his 40th sortie, which took place on 6 July 1943 – the second day of the Battle of Kursk. His squadron attacked a large formation of Ju 87s, and Kozhedub singled out one of the dive-bombers and swiftly shot it down. However, he was so intent on seeing the demise of first kill that he forgot to watch his tail, and was only saved from falling victim to a Bf 109 by the ever diligent Vasilii Mukhin. Moments later the squadron commander ordered the unit to reform its formation, but at that very moment Kozhedub spotted more Stukas approaching. When his warnings to his CO were totally ignored, Kozhedub flew off on his own to attack them, faithfully followed by Mukhin.

Singling out a bomber, he gave it a brief shot and then his guns fell silent. Kozhedub told Mukhin to move on up and take over, but his wingman was low on fuel and they had to abandon the battle as the Ju 87s jettisoned their bombs and fled westward.

When they returned home, Kozhedub proudly sought to report his victory. However, his CO, Capt Vladimir Semyonov, was less than impressed with Kozhedub's flagrant disregard of his orders, and publicly dressed him down for breaking formation to pursue his second attack. Only after making his point did he recognise Kozhedub's victory and fighting spirit.

This mission had taught the future ranking ace several important lessons that he would not forget. Firstly, he would now always watch his tail; secondly, he would not breach flight discipline; and thirdly, he would endeavour to conserve his ammunition.

The very next day Kozhedub destroyed a second Ju 87, although Capt Semyonov was wounded in the leg during the course of the same engagement. His injuries were not deemed to be serious enough to require evacuation, but it did leave him on crutches, and thus kept him from flying. Kozhedub duly took over command of the squadron in the air, although he still relied on Semyonov's advice on the ground.

During his first mission, which saw him leading a patrol of four fighters over Soviet troops, Kozhedub's formation was attacked head-on by a pair of Bf 109s. Waiting until they were within firing distance, he shot down the leading Messerschmitt. Kozhedub flew twice more that day, downing a second Bf 109.

He received his first decoration a short while later, and was also notified that Semyonov was being promoted to deputy regiment commander. Kozhedub was to replace him as squadron commander, with Pavel Bryzgalov as his deputy.



Eskadrilya Valerii Chkalov La-5s did not go only to the 159 IAP, as this shot clearly proves. Viktor Utkin, S N Bychkov and Valentin Rodchenko were all serving with 3 GIAP-KBF when they were photographed in front of Bychkov's aircraft, which displayed the inscription "Ot kholkhoznikov i kholkhoznits Gor'kovskoi oblasti" (from the collective farmers (men and women) of Gorkii Region) written across the star on the starboard side of the fuselage. Beneath the main inscription was a note explaining that the construction of the aircraft had been funded by the collective farm 'Novyi put' VII 1943 g' (New Path, July 1943) (via G Petrov)

covering the ground forces on the left bank of the River Dnepr when they were attacked head-on by a pair of German fighters. Kozhedub met the attack and his aircraft took several hits. At the last moment he dived below the Germans, and at this point Bryzgalov's and Gopkalo's pairs and his own wingman gave chase to the fleeing fighters, abandoning Kozhedub and ignoring his radio calls to return. Moments later, he spotted a formation of 18 unescorted Ju 87s, which he attacked single-handedly.

The dive-bomber pilots formed a defensive circle, as they knew that this was difficult for a lone fighter to disrupt. Kozhedub persevered, however, and was rewarded for his efforts with the destruction of a Ju 87, after which the others jettisoned their bombs and abandoned their attack. Kozhedub arrived home with his fuel almost gone and his canopy jammed shut. He was greeted by his flight as if he had returned from the dead, for they believed that he had been shot down by the German fighters. Setting off to avenge him, the other pilots had ignored Kozhedub's calls for their return as the ace's radio had been knocked out by the same enemy fire which had jammed his canopy. Kozhedub nevertheless scolded them for abandoning their primary responsibility of covering the infantry.

On 12 October he experienced one of his closest calls soon after shooting down a Stuka. Kozhedub's own aircraft had been damaged by the rear gunner's return fire, causing the fuel tank in the starboard wing to burst into flames. Unwilling to bale out behind enemy lines and face capture, he resolved to crash his burning aircraft into a German gun emplacement. However, at the very last minute the dive extinguished the fire and Kozhedub pulled out of his 'suicide attack' with just feet to spare.

Three days later the Red Army resumed its offensive and Kozhedub was sent out at the head of a flight of four La-5s. The Russian fighters were attacked head-on by two Bf 109s, which damaged both Mukhin's and Kolesnikov's machines, forcing them to withdraw. And when Zhigulenkov's La-5 began suffering from engine maladies, preventing him from climbing higher to join Kozhedub, the ace found himself in trouble. Knowing that he had to engage the German fighters in order to cover the withdrawal of his battle-damaged friends, he did not dare dive down to a lower altitude to join Zhigulenkov. The only choice left open to him was to

On 15 August Kozhedub came to the aid of a Pe-2 reconnaissance aircraft when he shot down two more Bf 109s. Eight days later he destroyed an Fw 190 whilst escorting yet another Pe-2. He noted that the attacking Focke-Wulf fighters were 'bright green and practically smelled of new paint'. Kozhedub's fiery victory caused the remaining aircraft to scatter – several months earlier the same fighters would have pressed home their attacks.

Kozhedub downed another Ju 87 during a difficult sortie on 30 September. He was leading a patrol

attack the Bf 109s from head-on, and then pull tightly up behind them and attempt to get onto their tails. The Germans had the same idea, and a turning battle soon developed. Kozhedub executed a very tight turn, combined with a half-barrel roll, and the Bf 109s flew on ahead of him. He closed in and began to fire, but his opponents executed a corkscrew, accelerated and flew off, leaving Kozhedub shaking his fist.

Later that same day both Kozhedub's and Evstigneev's flights joined up to sortie together. Once airborne, the eight La-5s were approached by a flight of German fighters which withdrew when they could not lure a smaller group of Lavochkins into an attack. A short while later a reinforced group of Bf 109s returned to engage the La-5s, and in the battle which ensued Kozhedub shot down a fighter and Evstigneev's flight claimed two more.

On 29 October Kozhedub led five La-5s in an attack on 12 He 111s, the bombers turning back after the ace had downed a single Heinkel. Two days later he destroyed another He 111, and followed this up with a Ju 87 that he found attacking Soviet ground forces later that same day. The Stuka took Kozhedub's score to 20 (11 of which had been downed in the space of just ten days in October 1943), and these had been claimed during the course of 146 missions and 27 aerial combats. By the end of January 1944 his score stood at 26 individual victories, and on 4 February Kozhedub was awarded the HSU and promoted to captain.

Flying was restricted during the early months of 1944 by poor winter weather. When it wasn't snowing, low clouds forced the Russian pilots to fly at tree-top height, and snow drifts covered roads, railway lines and other landmarks, thus making it difficult for pilots to navigate their way to and from their assigned patrol lines. To make life even more difficult for the Russian pilots, the enemy usually repainted its aircraft white overall in the winter months. When the sun did eventually come out, and the frozen airfields began to thaw, the landing strips quickly turned to mud.

Thinking that the VVS's fighter force was still grounded by the weather, the Luftwaffe made the mistake of sending its bombers to attack targets behind Soviet lines without the benefit of a fighter escort. On 14 March Kozhedub led a low-level patrol of six La-5s that were tasked

A 3 GIAP-KBF La-5F has its engine run up prior to departing the airfield at Lavenassri Island in mid 1944. Note the groundcrewman perched precariously on the fighter's tail, his weight helping to keep the La-5F on the ground while the pilot opens up the throttle to test that his ASh-82F *forsirovannyi* is functioning correctly (via G Petrov)



with protecting exposed Russian infantry positions on the ground. As they approached their patrol line, they observed a flight of nine Ju 87s at an even lower altitude, and they quickly attacked them head-on.

Following his initial opening pass, Kozhedub latched onto the tail of a Stuka and shot it down in flames as it struggled to reach the safety of nearby clouds. He then attacked and damaged a second dive-bomber, which he duly left for Nikitin to finish off. As the surviving Ju 87s scattered for home, some heading for the ground and others for the clouds, nine more Stukas were spotted approaching from the west. Kozhedub reformed his pilots and again went on the attack, Mukhin and Bryzgalov each shooting down a Ju 87 apiece before the enemy aircraft fled.

On the return trip home Bryzgalov was forced to land his damaged fighter on a newly-liberated airfield which had not yet been made operable. Attempting a wheels-down landing, he flipped over on the rough landing strip and Kozhedub could see that he was trapped in the cockpit of his fighter. The ace immediately landed, together with his wingmen Mukhin and Nikitin, while sending the remaining pair home. Kozhedub and his pilots also became bogged in the mud, but they were able to help free Bryzgalov from his crushed cockpit. All four pilots then sought out a nearby army command post, where they arranged for the loan of horses to ride back to their airfield – the fighters were retrieved by a fleet of trucks the next day.

240 IAP relocated to Bel'tsy, in Moldavia, on 2 April. Not only was this airfield closer to the frontline (and right alongside a railway station), it was also well known to the Luftwaffe, who had until recently occupied the base! Consequently, German raids were frequent and effective, the enemy often attacking at night with both light aircraft and medium bombers. Strafing attacks were also commonplace during the day, and occasionally bombers conducted audacious raids in daylight.

On 19 April Kozhedub encountered a formation of 15 Heinkels that were flying in a formation which he had not previously seen – three columns line astern. It did not keep him from shooting down one of the He 111s, however. Thereafter, daylight raids were carried out exclusively by Fw 190 *Jabos*. More kills came Kozhedub's way on 29 April when he attacked a formation of ten Hs 129s and four Bf 109s. Kozhedub shot down two Henschels, one of which blew up in mid-air.

Three days later he received a presentation aircraft, its allocation to him coming as a complete surprise. Without being told anything, he and Bryzgalov were ordered to fly to Bel'tsy to ferry back a new La-5FN. To Kozhedub's surprise, he was informed that this aircraft was a dedication machine specifically assigned to him. It was marked *Imeni Geroya Sovetskogo Soyuza podpoklovnika Koneva, N.* (in honour of Hero of the Soviet Union Lt Col N Konev). The donor had requested that it be given to the 'best pilot at the front'. Eventually, when Kozhedub was transferred to 176 GIAP, *Imeni Koneva* was flown by Pavel Bryzgalov until Kirill Evstigneev returned from hospital, the latter then being deemed to be the 'best pilot' in the regiment. This La-5FN must surely be the most distinguished aircraft in the history of Soviet aviation as it was flown by three aces, including the first and fifth ranking, with six HSUs between them.

A named aircraft was presented to a pilot who had flown with distinction in combat, and it was meant to encourage its occupant to ever greater



Capt Ivan Savel'evich Kravtsov of 3 GIAP-KBF shows off his La-5F at a public exposition at war's end. The inscription under the canopy proclaims that 'In this aircraft Hero of the Soviet Union Guards Captain Kravtsov, defending the city of Leningrad, shot down 31 enemy aircraft'. Kravtsov flew a total of 375 sorties in the I-16, LaGG-3, Hurricane, Yak-1 and La-5F (via G Petrov)

accomplishments. The pilot of a presentation aircraft was also obliged to write letters to the factory and to the donor, thanking them and periodically updating them on his achievements. The Germans also soon realised that the pilot of a presentation aircraft was someone who would make a special effort to engage and destroy them, just as the Soviets responded to Luftwaffe aircraft that boasted special individual markings. But Kozhedub decided that his fighter was special not only because of its markings – it had particularly outstanding handling and performance characteristics. As if to prove this point, Kozhedub increased his score by a further eight kills whilst flying *Imeni Koneva* in May 1944 alone.

Soon after returning to his regiment with the new La-5FN, Kozhedub was informed that a number of German aces had been posted into his sector. Their aircraft were reportedly marked with assorted insignia, including skulls and crossbones and dragons. Kozhedub later recalled that he had not previously encountered aircraft bearing such markings.

On his first combat patrol in *Imeni Koneva*, Kozhedub led a flight of four fighters as top cover for Evstigneev's attack group of six La-5s. A dozen Bf 109s appeared from Jassy, and when they declined combat Evstigneev went after them, with Kozhedub covering. Suddenly, two specks appeared from out of the sun – the hunters who were to bounce the Russians that had been drawn into a trap. Fortunately, Kozhedub saw the Bf 109s in time and turned into them to meet the attack. As the Germans banked away, he got a glimpse of the skull and crossbones insignia painted on their fuselages. He then fired a burst into the belly of the wingman, who fell away and crashed in flames.

Kozhedub again cheated death in June 1944 when his squadron was participating in a large, multi-squadron mission to provide cover for the army. Whilst patrolling near Jassy, a group of 20 Fw 190s appeared, and

they in turn tried to draw the Russians into a fight. Kozhedub's unit refused to engage them, and a few moments later a large formation of 36 Ju 87s, with an escort of Bf 109s, came into view. The Fw 190s, having unsuccessfully tried to distract the Russians, joined the escorts.

Kozhedub led his fighters in an attack on the bombers from the forward quarter, out of the sun. He fired at several bombers but did not have time to see if there were any results. Amelin shot down a Stuka, but was also hit by an escort and announced that he had to return home – Kozhedub ordered Amelin's wingman to escort him back. The battle continued, and suddenly Kozhedub noticed that he was alone in a sky filled with German aircraft.

At this point a second group of Ju 87s approached and ground control gave the order to attack them. Kozhedub again decided to engage from the forward quarter and duly attacked the formation leader head-on. Passing into the midst of the German formation, he executed a 180-degree turn and attacked again from the rear, but by now a flight of Fw 190s had latched onto Kozhedub's tail. With the leading German positioned just 50 metres behind the lone La-5, and with his wingmen covering his tail, the Fw 190 pilot opened fire. Kozhedub violently jinked his machine in all directions, desperately twisting and turning in an effort to get away from his foes who had boxed him in and kept up a steady stream of fire in his direction. Repeatedly the Fw 190s came close to shooting him down as the Russian ace pleaded over the radio for assistance, emphasising that he was all alone.

Finally, the Germans gave up the chase and turned away when a formation of Yak fighters arrived on the scene in response to Kozhedub's calls for help. Breaking off the engagement at the first opportunity, he spotted that the needle in his fuel gauge was already bumping the red line. Returning home on vapours, he reported that he was uncertain as to whether he had shot down the leader of the Ju 87 formation – Kozhedub's kill was confirmed for him by troops on the ground. Bryzgalov and Mukhin had also scored victories, while Evstigneev had claimed two kills and his squadron two more.

In early July Kozhedub was ordered to report to the regiment command post, where he was informed that he had been summoned to fly immediately to Moscow. Kozhedub had by then completed 110 sorties and raised his score to 48 victories. Bryzgalov would take over his squadron and fly *Imeni Koneva*, but Kozhedub was urged by his local commanders to try to return to his native regiment if at all possible. Upon his arrival in Moscow he pleaded to remain with 240 IAP until final victory had been achieved, but was informed that he was to go as deputy commander to a regiment assigned 'hunter' duties, and that was an order!

First Kozhedub retrained on the La-7, which was being issued to his new regiment. He then spent August with 2 ZAP (Replacement Training Regiment), where in addition to mastering the La-7, he also shared his combat experience with newly-trained pilots. He was still with this unit when, on Air Forces Day (19 August), Kozhedub was awarded his second HSU. Three days later he departed for his new regiment – Kozhedub's subsequent career with the La-7 is recounted in Chapter 3.

One of Ivan Kozhedub's great friends, and rivals, at 240 IAP was ace Kirill Evstigneev, who joined the army in 1938 and trained as a mechanic.



Kirill Evstigneev of 178 GIAP is seen in his Lavochkin. The presence of the Guards insignia below the fighter's cockpit would suggest that this aircraft may have been an La-7 (via G Petrov)

Thanks to his CO's support, he was eventually sent for flying training, which he completed in 1941. An outstanding cadet within his class, Evstigneev was retained as an instructor, and his requests to go to the front were repeatedly ignored until late 1942, when he was sent to 240 IAP along with Ivan Kozhedub.

Evstigneev flew his first mission on 19 March 1943, but he had to abort soon after take off when his landing gear refused to retract. Nine days later he scored his first kill when he downed a Ju 88, although

he was then attacked by four Bf 109s. Evading their attack, Evstigneev succeeded in getting in behind the trailing Messerschmitt and shooting it down. He had claimed two kills in his very first aerial engagement, and he boosted his tally to three on his 17th mission.

Up until now, Evstigneev had flown as wingman to a more experienced pilot, but in July he was promoted to leader of a fighting pair. He celebrated on the 8th of that month by claiming his first triple haul – three Ju 87s. One week later, after scoring his tenth kill, Evstigneev was promoted to senior lieutenant and made CO of the regiment's second squadron. He selected Valentin Mudretsov as his wingman.

On 5 August Evstigneev's aircraft was badly shot up in combat, the La-5 bursting into flames and then falling away in a steep dive. Wounded in both legs, the ace only just succeeded in baling out. Exactly who shot him down remains a mystery, for there were no enemy aircraft in the area, and no sign of flak. Despite almost losing his foot in this incident, Evstigneev discharged himself from hospital nine days later and walked 20 miles on to the nearest airfield! He would never be shot down again, nor would he lose a wingman.

Evstigneev's next major combat came in the autumn of 1943 during the battle for the Dnepr crossings. On 2 October he was leading a flight of four aircraft which initially intercepted a quartet of Bf 109s and then became embroiled with a group of twelve Ju 87s and four Messerschmitt escorts. Evstigneev shot down a Bf 109 in the opening engagement, followed by a second Messerschmitt and a Ju 87. He claimed a further ten kills over the next 19 days, then finished the month off with two more victories.

By then Evstigneev was way ahead of Kozhedub in terms of overall kills, and by November he had flown 144 sorties and scored 23 individual and three group victories. Nominated for the HSU at this time, Evstigneev finally received his award on 2 August 1944.

On the evening of 7 May 1944, whilst leading a patrol of six La-5s over the frontline, Evstigneev was alerted by ground control that 18 Bf 109s were directly approaching his formation. In spite of the odds, the VVS pilots did not hesitate to attack and Evstigneev scored two more victories. However, the real hero of this engagement was his wingman, Jnr Lt Mikhail Popko.

The pilot cranes his neck out of the cockpit of his La-5F in an effort to see ahead of him, the massive bulk of his ASh-82F *forsirovannyi* radial engine effectively blocking his forward vision over the nose of his 21 IAP fighter. This photograph was taken on the Leningrad Front in the spring of 1944 (via G Petrov)

Early in the battle Popko's cockpit began to fill with smoke, and he quickly discovered that an incendiary bullet had hit his parachute. In spite of this dire situation, he continued to provide cover for Evstigneev, chasing several fighters off his leader's tail and damaging one of them. Meanwhile, the fire at his back continued to smoulder, and by the time he turned for home the conflagration had worsened. Popko somehow made it back to his airfield, and after a hasty landing, he climbed out of the cockpit with his back badly burned. When the ambulance and emergency crew arrived, they found him lying on his side on the grass as local peasants poured water on him.

In June 1944 Evstigneev was grounded by the regimental doctor and sent to a hospital for attention to the various injuries he had received in combat. He spent two months in a clinic in Moscow, and while there he received his first HSU (his second was awarded on 23 February 1945). Twenty-four hours later Evstigneev released himself from hospital once again and headed straight back to his unit. He caught a lift with a Douglas transport to the airfield at Jassy, where he commandeered a serviceable, but unpainted, La-5. Evstigneev then flew off in search of his regiment, landing at various airfields.

He finally found his unit at Focsany, where he learned that it had become 178 GIAP, and that Kozhedub had been transferred to 176 GIAP. Evstigneev was soon promoted to captain and made the regimental navigator. He received the latter news somewhat reluctantly, expressing concern that his new duties would interfere with his flying. Finally, the returning ace was allocated La-5 'White 14' *Imeni Koneva*, which had previously been flown by Ivan Kozhedub and Pavel Bryzgalov.

Evstigneev would score five victories with this machine, the last of these being downed on 17 February 1945 in a head-on attack against an Fw 190. However, 'White 14' was also damaged by three armour-piercing rounds in the same engagement, and upon returning to base Evstigneev found that he could only lower a single undercarriage leg. Unfazed by this problem, the ace used all his flying skill to execute a masterful one-wheel landing.

By the end of the war Kirill Evstigneev had increased his score to 53 individual and three shared kills scored during the course of 296 missions and 120 aerial combats. His last victory was an Fw 190 shot down over Budapest on 26 March 1945.

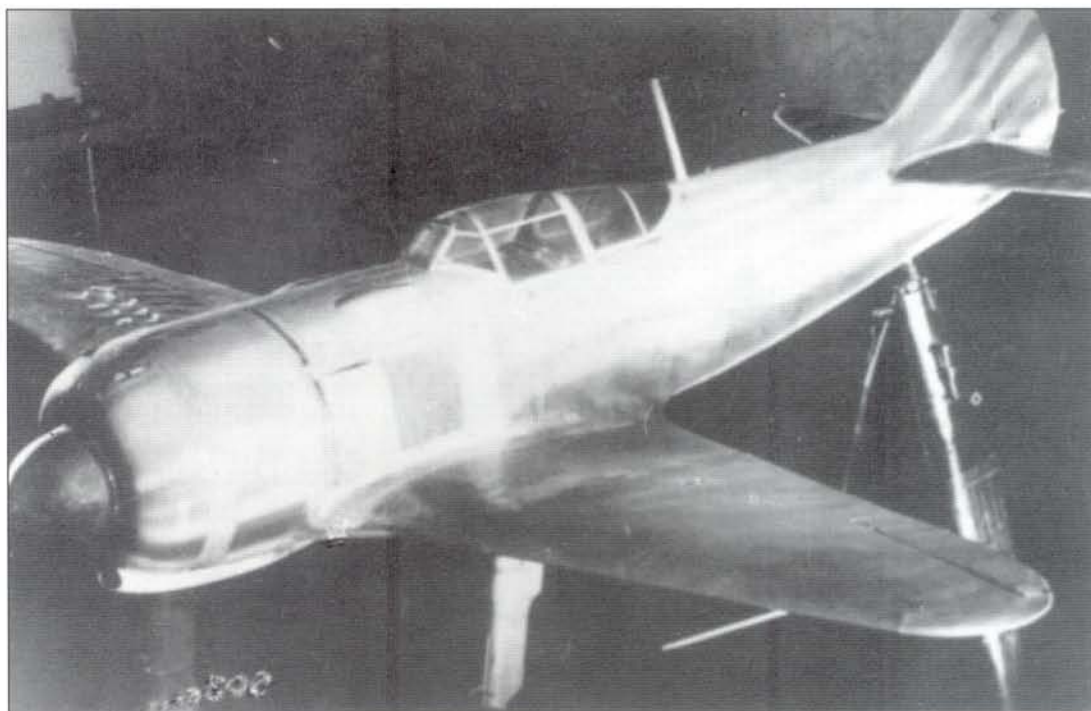


La-7 - BEST OF THE BREED

Semyon Lavochkin began working on a successor to the La-5F in early 1943. The first successful evolution was the La-5FN, which was followed by the even better La-5-M-71, powered by a 2200 hp Shevtsov M-71 radial engine. The latter made its first flight in June 1943, and was capable of attaining speeds up to 425 mph. Unfortunately, the La-5-M-71 proved unsuitable for production because of a shortage of M-71 engines. However, many of the lessons learned with this new machine were incorporated into the next production version, the La-7.

Denied an improved engine for his new fighter, Lavochkin had to rely on weight reduction and aerodynamic refinement to boost the performance of his tried and tested La-5. Some of the improvements incorporated included the replacement of wooden spars with lighter metal ones and an overall 'tidying up' of the fighter's external finish. The air scoop atop the nose was also replaced by wingroot intakes, while the oil cooler was moved aft from beneath the engine cowlings to the central underfuselage. The new fighter's armament initially remained unchanged, although in 1945 three Berezin B-20 20 mm cannon were installed. However, few cannon-modified La-7s had reached the frontline prior to VE-Day.

The stillborn La-5-M-71 undergoes wind tunnel tests at TsAGI prior to completing its first flight in June 1943 (via G Petrov)





Semyon Lavochkin (in the suit) meets with Baltic Fleet naval pilots at Gorkii in the autumn of 1944. To Lavochkin's right is Col Vasilii Golubev (39 and 12 shared kills) of 4 GIAP-KBF (via G Petrov)

Following pre-production testing, the La-7 began entering service in May 1944, and by the autumn it was in widespread use.

The La-7 could catch any enemy aircraft it might expect to encounter, and easily outclimb and outmanoeuvre the Fw 190 – its greatest piston-engined rival. It had its shortcomings, however, including inadequate range. As with previous Lavochkins, which had always suffered from excessive heat in the cockpit due to inadequate insulating between the cockpit and engine, the La-7 was also plagued by this problem. Indeed, pilots reported that heat levels had actually risen in the cockpit of the new fighter, with temperatures reaching 104°F! To make matters worse, exhaust gasses also seeped into the cockpit.

Once in the frontline, several prominent aces reported that the La-7 was a disappointment, stating that although it was a good aeroplane, it did not show sufficient advance over the La-5FN. However, the La-7 proved successful in combat, pilots even managing to destroy an Me 262 jet fighter and an Ar 234 jet bomber with the new machine.

Maintenance work is carried out on Col Vasilii Golubev's La-7 in late 1944 (via G Petrov)



The first regiment to receive the La-7 was 63 GIAP, commanded by Lt Col Evgenii Gorbatyuk. Formed as 169 IAP in June 1941, the regiment had converted onto the La-5 in late 1942 (one of the first to do so) and then been redesignated 63 GIAP on 18 March 1943.

Evgenii Gorbatyuk had completed flying training pre-war, and from 1941 he had flown the I-16 and MiG-3 with 28 IAP. An early recipient of the HSU (on 4 March 1942), Gorbatyuk was promoted to lieutenant colonel in February 1944



An early-build La-7 from an unidentified units rests between sorties in late 1944 (via G Petrov)

and appointed commander of 63 GIAP. By the end of the war he had flown 347 sorties and scored 19 victories.

Although not the highest scoring ace of 63 GIAP, Maj Aleksei Mares'ev was possibly its most famous, being dubbed the Russian 'Douglas Bader'. Also trained pre-war, Mares'ev first saw action in August 1941. He had claimed four victories by the time he was shot down behind enemy lines on 4 April 1942. Despite having suffered terrible leg wounds, Mares'ev spent 18 days literally dragging himself back to Soviet lines. Hospitalised, he had both legs amputated below the knee, although this did not prevent Mares'ev from returning to duty with artificial limbs in June 1943. Joining 63 GIAP, he shot down three aircraft (including two Fw 190s) over Kursk on 20 July. Mares'ev was awarded the HSU on 24 August 1943, and by war's end he had completed 86 combat sorties and scored 11 kills.

One of the most successful La-7s aces to serve with 63 GIAP was Aleksei Pashkevich, who had completed his military flying training in 1940 and then been retained as an instructor until his posting to 169 IAP, on the Kalinin Front, in early 1942. Pashkevich distinguished himself over Kursk in 1943, and by the spring of 1944 – when the regiment received its La-7s – he had been promoted to major. On 23 September 1944 he claimed four Fw 190s shot down, while his squadron destroyed seven more. Awarded the HSU on 23 February 1945, Pashkevich had raised his score to 20 victories by VE-Day. In April 1950 he was CO of MiG-15-equipped 29 GIAP during its time in Shanghai, and he later scored two victories over Korea.

The second regiment to convert to the La-7 was 156 IAP, which had begun the war with the I-16 and then upgraded to the LaGG-3. In August 1943 the unit converted to the La-5FN and welcomed a new commander in the form of Lt Col Sergei Fyodorovich Dolgushin.

Pilots from an unidentified regiment appear to be listening to a letter being read out by the officer sat in the centre of the group. Behind them is an La-7 which has been partially parked beneath camouflage netting. This photograph was almost certainly taken in the final weeks of the war (via G Petrov)



A distinguished combat veteran who had initially seen action flying I-16s, Dolgushin scored his first victory on 22 June 1941.

The next two years of conflict would see him fly most frontline Soviet aircraft types whilst serving with a host of different regiments. He was awarded the HSU on 5 May 1942 for seven individual and four shared victories, and in August 1943 Dolgushin was promoted to lieutenant colonel and sent to command 156 IAP.

After converting to the La-7, the regiment was held in reserve until sent back into combat in June 1944. In near continuous action from then until VE-Day, Dolgushin survived a direct flak hit over Danzig in February 1945. With his engine inoperable, the veteran pilot had to call on all of his flying skill to stretch out the gliding descent of his crippled fighter so that he could reach the safety of his own lines before making a forced landing. Dolgushin performed his last combat flight on 6 May 1945, by which time he had increased his official score to 17 individual and 11 shared kills – it appears that he scored eight of these victories while flying the La-7.

The most successful La-7 pilot to serve with 156 IAP was Maj Mikhail Zelenkin, who had been sent to the regiment in September 1941 after graduating from flying school. He remained with the unit throughout the war, flying the LaGG-3 and then the La-5. By August 1944 Zelenkin had completed 218 sorties and scored 19 individual and three group victories – he had also downed a German observation balloon. His combat career truly blossomed with the arrival of the La-7, however, and he had increased his tally by almost 50 per cent come VE-Day. Zelenkin's final score was 28 individual and four group victories from 326 sorties.

Ironically, one of the most successful of all La-7 regiments had not previously flown the La-5. 9 GIAP had started the war as 69 IAP, fighting over Odessa in I-16s and MiG-3s, before receiving LaGG-3s in the autumn of 1941. On 7 March 1942 the unit was redesignated 9 GIAP, and from the autumn of that same year until July 1944, the regiment flew the Yak-1 and the P-39. 9 GIAP then converted onto the La-7, and after several months of being held in reserve, it was thrown back into action once again in November as part of Zakharov's 303 IAD. This division also controlled La-5-equipped 523 IAP and two Yak-3 units, including the famous French-manned *Normandie-Nieman*.

By the time 9 GIAP received its first La-7s, a number of the unit's pilots were already leading aces. Coinciding with the arrival of the Lavochkin fighter was the transferring in of a new CO in the form Vladimir Lavrinenkov. A battle-hardened veteran, he had initially struggled to make an impact in combat flying an obsolete I-15bis. Indeed, it was not until his unit converted onto the Yak-1 in the spring of 1942 that his fortunes began to pick up. Lavrinenkov was given aircraft 'White 17', and



The official wartime caption for this photograph identifies HSU-winner P M Baikov (right) conducting an impromptu briefing with his unidentified wingman for the camera in front of a personalised La-7 in the final months of the war. However, no pilot by the name of P M Baikov ever flew the La-7 in combat, so the individual in this shot is almost certainly Pavel Mikhailovich Baikov of 113 GIAP, who completed 386 sorties and scored 15 individual and four group victories. Never awarded the HSU, he instead received the Hero of the Russian Federation in 1995 (via G Petrov)



Officially captioned as 'an La-7 of an unidentified Guards regiment on the Baltic Front, 1944', this aircraft may have been the personal mount of Vasilii Zaitsev (34 individual and 19 shared kills), deputy commander of 11 GIAD. Most of his fighters featured a white nose marking identical to the one seen here (via G Petrov)

since that was the date of his birth, he decided it was a lucky talisman – he would fly aircraft marked with a 17 through to VE-Day.

Lavrinenkov finally scored his first victory soon after receiving his Yak-1, and in October 1942 he was transferred to 9 GIAP. Awarded the HSU on 1 May 1943, Lavrinenkov had by then flown 322 missions and scored 16 individual and 11 shared victories in 78 aerial combats. He was captured in late August after ramming a German aircraft and baling out over the frontline, but Lavrinenkov succeeded in escaping and eventually returned to his regiment two months later.

He was awarded a second HSU on 1 July 1944, just as 9 GIAP was withdrawn for its conversion onto the La-7. Seventeen days later regimental CO Col Anatolii Morozov was killed in a flying accident that was blamed on the Lavochkin fighter's notorious right-hand propeller torque, and Lavrinenkov was promoted in his place. The latter protested that there were more experienced pilots than he, and that he just wanted to fly and fight, but his superiors overruled him.

At the end of October Lavrinenkov led the regiment back into action, 9 GIAP being charged with securing air superiority over the frontline. Full-time 'free hunting' was now the order of the day, but not just in flights of fours or pairs – they would operate at squadron and full regimental strength as well.

9 GIAP would be working closely with the *Normandie-Nieman* Regiment, and fortunately Lavrinenkov and his French counterpart, Maj Louis Delfino, got on well together. A friendly rivalry soon developed, and heated discussions about who had the better aircraft (the French regiment was flying the Yak-3) raged on the ground. The honour of the respective 'breeds' demanded a duel, so early one morning two La-7s, flown by Lavrinenkov and his favourite wingman Ostapchenko, and two Yak-3s, flown by Louis Delfino and his wingman, took off from their respective airfields for a mock dogfight.

Dive, attack, turn, climb, attack again, roll, turn and climb. The partisans of both types felt they had carried the day, the Lavochkin

Boasting a chest full of medals and decorations, Aleksei Alelyukhin looks very pleased at having been presented with the 'personalised' La-7 parked behind him. Note the fighter's dedication inscription, which read, *this aircraft was donated to Alekseyu Alelyukhinu ot kollektiva tresta No.41 N.K.A.P* (to Aleksei Alelyukhin from the collective of Factory No.41 of the People's Commissariat of the Aviation Industry). Deputy CO of 9 GIAP, Alelyukhin was presented with the aircraft at an airfield in East Prussia in December 1944 (via G Petrov)



pilots demonstrating their mounts' superiority in climb and vertical manoeuvre, and the Frenchmen in their Yaks excelling in their rate of turn and manoeuvrability in the horizontal plane. Finally, the battle had to be called off when Lavrinenkov began to show signs of what was later diagnosed as tachycardia (accelerated heart beat), caused by his ramming attack 18 months earlier. This ailment would trouble him intermittently for the rest of his life.

On 13 January 1945 the Red Army launched a massive offensive into Germany, and 9 GIAP flew both ground attack and escort missions, as well as 'free hunting' sorties. By early April the regiment was supporting the assaults on Königsberg and Pillau, and once the battle for East Prussia had been concluded, 9 GIAP relocated to Poland. Its final action took place in the Battle for Berlin, although the Luftwaffe's reaction to the assault on the German capital was so ineffective that only a few of Lavrinenkov's pilots managed to find enemy aircraft to shoot down.

Vladimir Lavrinenkov had flown 448 missions, fought in 134 aerial battles and scored 36 individual and 11 shared victories (three of them in the La-7) by war's end.

The top scoring pilot within 9 GIAP was Maj Aleksei Alelyukhin, who was a member of 69 IAP from the first day of the war to the last. He claimed his first two victories whilst flying an I-16 over Odessa, and also suffered his first wounds at this time. Pulled out of the frontline in the autumn of 1941, the regiment re-equipped with LaGG-3s and returned to combat just weeks later. Retreating with the rest of the VVS across the southern Ukraine to Stalingrad in late 1941, Alelyukhin distinguished himself during this period in a series of engagements with numerically superior German formations.

By the summer of 1942 he was an experienced fighter pilot, and on 10 August he led six LaGGs in an attack on ten Bf 109s, shooting one of the latter down (as did his wingman, Lt Safronov). Weeks later Alelyukhin was flying alone in his LaGG when he was attacked by four Bf 109s. Six times he was able to shake off an enemy fighter that had latched onto his tail, before eventually managing to escape by diving to ground level and flying east at tree-top height. He had even managed to shoot one of his opponents down prior to his hasty departure.

Gerhard Barkhorn, who would survive the war as Germany's number two ace with 301 kills, was flying in the area at the time, and he well remembered this engagement with the 'indestructible LaGG'.

Alelyukhin claimed four unidentified bombers destroyed over Kalach and two Ju 87s and a Bf 109 downed near Kotel'nikovo in the final months of 1942, and he continued this run success into 1943 by scoring 18 victories. In August of that year his unit exchanged its Yaks for P-39s, and Alelyukhin was awarded his first HSU (on 24 August) at the same

time. His second followed on 1 November 1943, and he was promoted to major shortly afterwards.

Alelyukhin's contribution far exceeded his role as a fighter ace pure and simple, for he was also an inspirational leader and teacher. According to fellow ace Lavrinenkov, he was particularly skilled at introducing inexperienced pilots to combat and helping them gain confidence with their first kills. In July 1944, just as 9 GIAP received its first La-7s, Alelyukhin was promoted to deputy regiment commander. He also received a presentation aircraft 'purchased' specially for him.

Fighting over the Baltic and East Prussia, Alelyukhin shot down two Fw 190s in a single battle west of Pillau on 27 March 1945. On 19 April he claimed a third Fw 190 over Berlin, and by the end of the war Alelyukhin had flown 601 sorties and fought 258 aerial combats, claiming 40 individual and 17 group victories. His victories cannot be apportioned precisely, but it appears that he scored nine kills, both individual and shared, in the LaGG-3, and perhaps a dozen in the La-7.

Fellow ace Pavel Golovachyov transferred to 9 GIAP in October 1941 from 168 IAP. He too enjoyed little luck with the I-16, and it was only after his regiment had converted onto the LaGG-3 that he would claim his first victory when he shot down a Bf 109 on 25 June 1942. Days later, Golovachyov was flying with a wingman when they were bounced by four Bf 109s. Unable to escape, the LaGG pilots took the fight to the Germans, Golovachyov managing to shoot down one of the Messerschmitts before his own fighter was hit in the cockpit by cannon fire, shattering the windscreen and instrument panel. The future ace was saved by his armour plating, and he only just made it back home, where he found that his undercarriage was also inoperable. After belly-landing his fighter, Golovachyov was taken to hospital, where surgeons struggled to remove glass and shell fragments from his body – five small pieces of shrapnel would remain embedded in his body for the rest of his life.

Soon back in action, Golovachyov was again wounded on 23 August whilst shooting down a Ju 88. Hit by return fire and knocked out, he recovered consciousness to find his LaGG in a spin. Although Golovachyov eventually regained control and levelled off, he had placed so much stress the airframe that the fighter's tail broke off just minutes later. Somehow surviving the subsequent crash into the River Don, Golovachyov spent a month in hospital recovering.

He returned to his regiment just as it was reforming as an elite Yak-1-equipped unit, and from late 1942 Golovachyov began to score regularly. By the end of October 1943 he had increased his tally to 17 victories, and he was awarded his first HSU on 1 November 1943 as a result of this success.

When 9 GIAP converted to the La-7 in the late summer of 1944, it took the opportunity to reorganise its command staff. Golovachyov was promoted to captain, and duly became a deputy squadron commander.

Returning to the action, Golovachyov claimed a Ju 88 reconnaissance aircraft on 30 December 1944, the Junkers flying at a height of some 9000 metres over Insterburg. This kill proved to be far from routine, for despite having damaged the aircraft with cannon shells, the Ju 88 turned away from the La-7 and started to head home. Golovachyov, now out of ammunition, and determined that his prey would not escape, closed on the



Having swapped his dress uniform for his flying gear, Aleksei Alelyukhin poses on the left wing root of his presentation La-7 (via G Petrov)



Routine maintenance work is carried out on the La-7 of 9 GIAP's Maj Sultan Amet-Khan, the fighter being parked in a recently captured German hangar in East Prussia in late 1944. Amet-Khan scored the last three of his 30 individual and 19 shared victories in this La-7. Note the ace's personal motif on the nose (via G Petrov)

25 April when he caught two Fw 190s flying barely 100 metres above the ruins of Berlin. Diving on them, he destroyed one aircraft in his first attack and then pulled tightly onto the tail of the second machine, sending it down with a well-aimed burst.

By war's end Pavel Golovachyov had flown 457 missions and fought in 125 aerial combats. He had scored 31 individual and one shared victories, 14 of which were claimed in the La-7. Golovachyov was awarded his second HSU on 29 June 1945.

Sultan Amet-Khan was yet another ace to flourish with 9 GIAP. Initially flying I-153s and then Hurricanes with 4 IAP in 1941, he failed to claim his first kill until well into 1942. In October of that year Amet-Khan was one of several 4 IAP pilots selected for transfer to the elite 9 GIAP, and he quickly made a name for himself with the Guards regiment. He was awarded his first HSU on 24 August 1943 for 19 individual and 11 shared victories, scored during the course of 395 missions and 79 aerial combats.

In the spring of 1944 Amet-Khan had the bitter-sweet pleasure of participating in the liberation of his native Crimea – bitter because the liberation was followed by the mass deportation of his own Crimean Tatar people to Central Asia. Although his family was exempted from this treatment in deference to Amet-Khan's HSU status, his brother vanished and was never seen again.

Following the liberation of the Crimea, 9 GIAP transitioned to the new La-7 and then returned to combat in late October. By now Amet-Khan was a major, and deputy commander of the regiment.

In early November he shot down an Fw 190 over East Prussia, and he followed this up with a second Focke-Wulf fighter destroyed in the same area on 26 January 1945. Amet-Khan claimed a Bf 109 near Berlin on 25 April and an Fw 190 over the city four days later (his final kill). The pilot of the latter machine baled out, and when he was captured he turned out to be a *gruppenkommandeur* with the rank of colonel, and a Knight's Cross winner.

By VE-Day Sultan Amet-Khan had completed 603 combat sorties, participated in 150 aerial engagements and scored 30 individual and 19 shared victories – it seems likely that he scored just four individual victories while flying the La-7. Amet-Khan was awarded his second HSU on 29 June 1945.

aircraft and rammed it with his propeller. Having terminally damaged the Ju 88, he was able to coax his battered fighter back to base. Within a few days the Lavochkin was flying once again, and on 18 January 1945 Golovachyov claimed four Fw 190s in two sorties in his now repaired La-7.

Appointed commander of the first squadron on 15 February, Golovachyov had completed 385 missions, and scored 26 kills, by the end of the following month. The ace scored his last two victories on

Ivan Borisov graduated from flying school in October 1941 and was sent to 309 IAP, where he flew the Tomahawk until transferred to 4 IAP in July 1942. Now flying the Hurricane, he became Sultan Amet-Khan's wingman, and the two pilots would remain inseparable for the rest of the war. Borisov claimed his first victory whilst still flying the Hurricane, although he was also shot down. In October Amet-Khan and Borisov were among the pilots selected for transfer to 9 GIAP, and for the next two years he flew the Yak-1 and P-39. During this period Borisov became an ace in his own right, and on 1 November 1943 he was awarded the HSU for ten individual and eight shared victories, scored in 210 sorties and 80 aerial combats.

Borisov was promoted to captain and became commander of the second squadron (the most successful in the regiment) during the summer of 1944. Now flying the La-7, he shot down a Bf 109 and an Fw 190 on 18 February 1945 over Poland and East Prussia. On 20 April Borisov encountered a Me 262, although his quarry was able to escape because of its speed.

There is some dispute about Ivan Borisov's final score, most sources claiming that he had flown 250 missions by VE-Day, claiming 14 individual and nine shared victories in 86 aerial combats.

176 GIAP

The most famous of all La-7 regiments was 176 GIAP, and although it contained a number of aces, its fame was primarily due to only one of them – Ivan Kozhedub. The regiment began the war as 19 IAP, which had been the first unit to receive the LaGG-3 when two or three early examples arrived in the frontline for pilot familiarisation. It was primarily equipped with I-153s and I-16s, and these were eventually replaced with an assortment of MiG-3s and more LaGG-3s. The latter types gave way to the La-5 in 1942-43, and 19 IAP made effective use of the Lavochkin on several fronts. The unit became 176 GIAP on 19 August 1944, simultaneously re-equipping with the La-7. Three days later the regiment was boosted by the arrival of several new pilots, one of whom was twice HSU winner Ivan Kozhedub, who had already scored 48 kills with the La-5.

Soon after arriving at his regiment on the 1 Belorussian Front, Kozhedub reported to his new CO, Col Chupikov, who in turn introduced him to the personnel of 176 GIAP, and informed him of the unit's traditions and procedures. Each pilot had his own assigned aircraft, and routinely flew with the same wingman or pairs leader. Kozhedub's wingman would be Maj Dmitrii Titarenko, the regiment's Chief of Air Weapons Service. As a dedicated 'hunter' regiment, 176 GIAP usually sortied aircraft in pairs, and seldom in large formations.

On 23 August, when Kozhedub arrived at the airfield in preparation for the day's flying, he discovered that the La-7 ('White 27') he had



Sultan Amet-Khan (right) is seen standing alongside his La-7 with his faithful wingman, and fellow ace, Ivan Grigor'evich Borisov (via G Petrov)

This commemorative photograph of leading Soviet ace Maj Ivan Kozhedub was taken in August 1944 following the award of his second HSU. Behind him is the brand new La-7 that he would take with him to his new regiment, 176 GIAP (via G Petrov)



brought with him to the regiment had been painted overnight with a red cowl and white tail markings to bring it into line with the rest of 176 GIAP's aircraft.

Promoted to major just days later, Kozhedub led a detached squadron to Riga in support of the 14 Air Army in one of his first missions with 176 GIAP. The unit's patrols initially provoked little response from the enemy, but on 22 September Kozhedub and Titarenko were 'free hunting' when they heard a group of eight Yaks pilots from their host regiment announce over the radio that they were in combat with six Fw 190s that were escorting a formation of bombers. Kozhedub and Titarenko immediately went to their assistance, attacking the German fighters from out of the sun. Although they were unable to score any kills, the La-7 pilots nevertheless created enough distraction to allow the Yak-3s to maul the bombers.

During the course of the engagement Kozhedub lost sight of Titarenko, so he ordered Lt Sharapov to fly as his wingman and duly continued his 'free hunt'. A short while later, the ace spotted eight Fw 190 *Jabos*, and Kozhedub and Sharapov attacked the formation from the rear. Bracketed by German flak just as he opened fire, Kozhedub took brief evasive action and then attacked once again. He fired a burst into the last *Jabo*, forcing the pilot to bale out and the Fw 190 to roll over and dive into the forest below. The other aircraft scattered and fled.

Regaining altitude, Kozhedub could not find his wingman, or raise him on the radio. He did, however, spot yet another group of six Fw 190 *Jabos*, and wasted no time in attacking them from above and behind out of the sun. He was spotted by the enemy leader, and the *Jabos* jettisoned their bombs and tried to climb away. Kozhedub went after the leading Fw 190 and shot it down at close range, the ace seeing the pilot bale out.

Still unable to find Sharapov, Kozhedub lost altitude in search of him and found two more Fw 190s. Moments after launching an attack on these aircraft, a third Focke-Wulf joined the formation, and Kozhedub damaged one of the fighters and then broke off for home. To his relief, he found Titarenko safe and well back at base, but Sharapov failed to return.

On 25 September Kozhedub flew with deputy squadron commander Ivan Shcherbakov as his wingman. The latter pilot was known for being hot-headed in combat, and when they spotted a pair of Fw 190s below them, he immediately announced, 'I'll attack – you cover me!' and dived on them, leaving his position as wingman. Quickly despatching one of the fighters, Shcherbakov was then set upon by two more Fw 190s and Kozhedub barely had a chance to call out a warning and dive to his wingman's rescue. He shot down the leader of the attacking pair and then noticed, just in the nick of time, that two more Focke-Wulfs were closing on his tail from above. Kozhedub was able to avoid their attack, and with two Fw 190 pair leaders downed, the remaining German fighters gave up the battle.



Ivan Kozhedub is congratulated by fellow pilots from 176 GIAP soon after claiming his 62nd, and last, victory over Küstrin on 17 April 1945 (via G Petrov)

But even the greatest aces can be defeated by a seemingly helpless enemy. Some weeks later Kozhedub and Titarenko were on an early evening patrol when they spotted a twin-tailed aircraft which they mistook at first for a straggling Pe-2. As they got closer, the pilots spied the machine's black crosses and snub Dornier nose – a German reconnaissance aircraft. Naturally, Kozhedub attacked, approaching the Dornier at virtually the same altitude.

The enemy gunners put up a spirited defence, and even as Kozhedub saw his shells striking home, he felt a sudden jolt, followed by a lurch, and his fighter fell away out of control. With some difficulty, he managed to level out and attempt another pass on the Do 217. However, his Lavochkin again fell away out of control, and after wrestling to regain horizontal flight for a second time, Kozhedub had little choice but to limp home, escorted by Titarenko, leaving the Dornier to escape. Upon landing back at base, he discovered that several bullets had struck the wing of his La-7 and damaged some of its aileron control lines.

The unit's sortie rate drastically deteriorated with the onset of winter, and despite the launching of a new ground offensive on the 1 Belorussian Front on 14 January 1945, 176 GIAP's contribution to the campaign was initially hampered by low cloud and snow storms. Twenty-four hours into the offensive the weather cleared just enough to allow experienced pilots to patrol the battlefield at low level beneath the clouds. No German aircraft were found, however, so 176 GIAP had to limit itself to strafing.

Following the liberation of Warsaw on 17 January, the regiment moved forward several times in an effort to keep up with the advancing troops. On some occasions its pilots found themselves flying from bases so close to enemy positions that they could literally begin strafing German troops before they had fully retracted their undercarriage! As Soviet forces moved closer to Berlin resistance stiffened, and the Luftwaffe resumed attacks with large formations of up to 50 to 60 bombers. There were also frequent and effective raids on forward VVS airfields by fighters and Fw 190 *Jabos*.

On 10 February Kozhedub and Maj Titarenko were returning from an unsuccessful 'hunter' mission at very low altitude when, virtually over their own airfield, they met two fighters of a type they had not before seen. Both had long noses like a Bf 109, but the wings and tail of an Fw 190. Kozhedub had heard of the Fw 190D, but had not previously encountered it in combat. He launched himself at the closest machine, with Titarenko covering his tail, and gave the leader a burst of cannon fire that caused something to fly off the fuselage. A plume of white steam then vented from the Focke-Wulf's engine and it began to dive towards the ground, leaving the wingman to vanish into the clouds.

Just feet above the ground, the damaged aircraft pulled up and began to gain altitude once again. Kozhedub gave it a second burst of fire, which again hit the engine. Another object fell away from the fighter, and this time it sprouted a parachute – the pilot had baled out. The Fw 190D crashed on the edge of the airfield.

Two days later, Kozhedub's regiment was instructed to fly defensive air cover at tree-top height in poor weather for a strategically important Soviet bridgehead across the River Oder. As usual, the pilots were operating in dispersed pairs so as to provide better target protection. Kozhedub and

his wingman, Lt Gromakovskii, soon intercepted a formation of 30 Fw 190 *Jabos*, and the Soviet ace summoned the other patrolling pairs to join them. Losing still more altitude in order to attack the German fighter-bombers from below, Kozhedub fired three bursts into the belly of an Fw 190 from a distance of 100 metres, causing his target to crash spectacularly in flames. A second Focke-Wulf then attacked Kozhedub from above and behind, although it was quickly downed by Gromakovskii. The enemy formation then broke up, and Kozhedub and Gromakovskii again lost height in order to mask their approach for their next attack. Both men duly shot down a second Fw 190 apiece.

Moments later Kumanichkin and Kramarenko arrived and attacked the German formation leader, shooting him down. Then Stetsenko and Orlov set about the Fw 190s, each of them scoring single victories, although Orlov was in turn caught by a burst of enemy fire and killed. As the German formation scattered into the clouds, Kozhedub pursued and caught one final Fw 190, shooting it down at close range for his 57th kill.

On 19 February, while flying with Dmitrii Titarenko, Kozhedub was able to surprise and shoot down an Me 262 – the first of six jets destroyed by Soviet pilots during the war (see the cover caption for a detailed description of this engagement).

Kozhedub's next victories came on 18 March, when he and his squadron came to the aid of a Yak fighter regiment which was being attacked by a larger formation of Fw 190s. Surprising the Germans, he quickly shot a Focke-Wulf off the tail of a Yak-3. 176 GIAP also shot down two more Fw 190s, before leaving the Yak pilots to successfully conclude their battle while Kozhedub's Lavochkins broke off the fight due to a shortage of fuel.

Four days later, Kozhedub was flying with Maj Titarenko as his wingman and Capt Kumanichkin and Lt Gromakovskii as a second pair. Whilst patrolling over the Seelowe Heights, they engaged a formation of 30 Fw 190 *Jabos*, Kozhedub shooting down two fighter-bombers and each of his companions also scoring single victories. Having now raised his tally to 60 kills during the course of 326 missions, Kozhedub was nominated for a third HSU soon after this action.

Still more Fw 190 *Jabos* were encountered on the evening of 17 April, Kozhedub intercepting the enemy machines on his fifth sortie of the day over Berlin. Visibility was terrible (down to only a few metres in places), as the sky was filled with the smoke from the burning ruins of the German capital. Kozhedub and Titarenko were flying at an altitude of about 3500 metres when they spotted a formation of 40 Fw 190 *Jabos* through a gap in the clouds. Approaching each other almost head-on, both sides opened fire at once. Kozhedub then broke sharply into a 90-degree turn before climbing up in order to manoeuvre himself onto the tails of the 'Fokkers'.

After radioing a warning to base so that more fighters might be sent to intercept this large force, the Russian ace attacked. He was flying almost level with the wingman of the last pair of Fw 190s, and he shot the trailing fighter-bomber down at close range with his first burst. The formation then started to break up, and some of the pilots jettisoned their bombs in preparation for a fight. Passing through the swarming enemy aircraft, Kozhedub gained altitude, with Titarenko close behind. Diving back into the remnants of the Fw 190 formation once again, Kozhedub

damaged another aircraft, while Titarenko shot down a Focke-Wulf that had positioned itself on his leader's tail.

As the Germans scattered and escaped westward, Kozhedub and Titarenko headed for home. On their way back they encountered a lone bomb-equipped Fw 190, seemingly separated from the original group that they had intercepted. Resolutely pressing on to his target in the east, the German pilot's obstinacy was shown little respect by Kozhedub, who shot him down for his 62nd, and last, kill – this success confirmed Ivan Kozhedub as the allied 'ace-of-aces'. Both he and Titarenko landed with little more than fuel vapour in their tanks.

Kozhedub did not see the end of the war in Germany, for he was flown back to Moscow for a 1 May address to the Soviet people and to participate in the May Day celebration.

Ivan Kozhedub completed 330 sorties and fought in 120 aerial combats, during which he scored 62 individual victories (including 14 in the La-7). Post-war, he said that his actual, if unofficial, total of victories was in excess of 100, as he never counted shared kills. Kozhedub received his third HSU on 18 August 1945.

There were two more kills scored by the leading ace which the Soviets never credited, and which Kozhedub was more than happy to forget. In April 1945 he saw an American B-17 being attacked by a pair of German fighters. Coming to the bomber's rescue, he fired a burst between the enemy machines and their intended prey, causing the Germans to break off their attack and dive away. Before Kozhedub could pursue them, he spotted an approaching formation of unfamiliar fighters. The leader of the group opened fire on Kozhedub at long range, and the Russian ace in turn pulled up sharply behind the last machine in the formation and shot it down in flames – the fighter fell among Soviet troops on the ground.

A rare three-Berezin B-20 20 mm cannon-armed La-7 is surrounded by Russian civilians during the victory exposition staged in Leningrad in the summer of 1945 (via G Petrov)



Pulling up in a half-loop, Kozhedub then fired another burst into the leader of the formation, who was also shot down. It was at this point that he saw the blue and white stars on the wings and fuselage of his 'enemy'. Kozhedub returned to base extremely upset, certain that his actions would result in a major row with the allies. Fortunately, one of the American pilots managed to bale out, and when he was asked who shot him down, he replied 'a Focke-Wulf with a red nose'. Col Chupikov gave Kozhedub the gun camera film confirming his two Mustang kills, along with the admonition, 'Keep this to yourself – show no one'.

By 1951 Ivan Kozhedub had been promoted to colonel and given command of 324 IAD during its time in Korea, supporting the war against the south. His division proved to be one of the most successful MiG-15 outfits to serve in the Korean War, although Kozhedub had to lead from the ground as Stalin had personally forbidden him from risking his life in combat.

Fellow 176 GIAP ace Vladimir Gromakovskii graduated from flying school in mid 1942 and was then sent to 19 IAP in August. However, for the next two years he seems to have seen relatively little combat, scoring just ten victories in about 25 aerial combats. With the arrival of the La-7 in the late summer of 1944, Gromakovskii played a more active part in 176 GIAP's war, often flying as wingman for the newly-arrived Ivan Kozhedub – a position guaranteed to provide lots of excitement, as well as chances to add to his own score.

Just such an action occurred on 12 February 1945 when the pair were flying a 'free hunting' mission over East Prussia. Intercepting 30 Fw 190 *Jabos*, Kozhedub busied himself claiming three victories, leaving Gromakovskii to twice shoot Focke-Wulf fighter-bombers off his leader's tail. On 22 March he was flying with Kozhedub, Kumanichkin and Titarenko when they again attacked a large formation of Fw 190s, this time over Seelow. Gromakovskii emerged from the fight with yet another victory to his name, and he was rewarded for this success with promotion to senior lieutenant.

Gromakovskii claimed another kill – this time over Berlin – on 19 April, and he scored his final two victories in the same area five days later. By the end of the war he had flown 186 missions and shot down 16 enemy aircraft in 29 aerial combats. Vladimir Gromakovskii received a well earned HSU on 15 May 1946.

Maj Aleksandr Kumanichkin was yet another ace to see combat alongside Ivan Kozhedub in 176 GIAP. Having completed his flying training pre-war, Kumanichkin, like Kozhedub, was retained as an instructor until July 1942, when he was sent to 40 IAP. The unit was then embroiled in the fighting over the North Caucasus, flying a mixed force of MiG-3s and I-16s, although it standardised on the La-5 later in the year. By November 1943 Kumanichkin had flown 196 sorties, and in 36 aerial combats had claimed 18 personal and one shared victories. He was awarded the HSU on 13 April 1944 and promoted to major following this success. In September 1944 Kumanichkin was transferred to 176 GIAP as the Regiment Navigator.

In early January 1945 Kumanichkin was flying with regimental CO, Col Chupikov, in La-7s equipped with newly-introduced gun cameras which they hoped would help them confirm victories scored over enemy



territory. The two pilots soon came across a pair of Bf 109s configured with what appeared to be bomb-carrying apparatus. The Soviet pilots attacked and the Lavochkins should have had little trouble in shooting them down. However, both Messerschmitts accelerated away at a speed previously unknown for the type.

Although Chupikov and Kumanichkin failed to score any significant hits on either machine, they did obtain good photos of the new equipment with their gun cameras. After reviewing the film, the regimental intelligence officer decided they had encountered German fighters equipped with rocket booster packs – something not previously seen.

On 12 February Kozhedub, Kumanichkin and Orlov, and their respective wingmen, sortied as three independent, but supporting, pairs. When Kozhedub encountered 30 Fw 190s, the remaining pairs hurried to join the battle. The six La-7s put up a brave fight against the 30 *Jabos*, Kumanichkin shooting down the formation leader in a head-on attack – one of eight victories claimed for the loss of a single Soviet aircraft.

He scored his next victory on 22 March while flying wing for Kozhedub, four La-7s, all flown by aces, attacking a formation of 30 Fw 190s. Kumanichkin fought his last aerial combat on 30 April on the outskirts of Berlin. Flying a 'free hunt' mission with Sergei Kramarenko, they had intercepted a formation of 16 Fw 190 *Jabos*. Kumanichkin singled out one of the Focke-Wulfs and shot it down, while the others dropped their bombs and fled.

Aleksandr Kumanichkin flew over 300 sorties and fought in 70 aerial combats, scoring 31 individual and one shared victories. He would see further combat in Korea in 1951-52 as deputy CO, and then CO, of 303 IAD. Indeed, he boosted his final tally with a further six kills while flying the MiG-15.

Bearing a special tail marking, this La-7 served as a backdrop for a group photograph of battle-hardened pilots from an unidentified Guards regiment. This shot was taken in early 1945 (via G Petrov)

APPENDICES

Identified Lavochkin Units

The exact aeroplane types used by a number of Soviet fighter regiments in World War 2 have not yet been confirmed, particularly amongst the PVO and second line units. While the air divisions of the inactive fronts such as the Transbaikal and Far Eastern Fronts have all been identified, in most cases their component regiments have not, and their aircraft equipment remains unknown. However, it is certain that LaGG-3s served with a significant proportion of these units. It is also known that La-5s and La-7s had been introduced into service in eastern regiments by the time of the August 1945 war with Japan.

During the first year of the war, air regiments seldom remained associated with a particular division for long. When depleted by losses a regiment would be withdrawn to the rear to rebuild – a process that could take anywhere between two weeks to several months to complete. When it returned to the frontline, the regiment would be assigned to a different division.

In the early chaotic months of 1942, division structure ceased to exist, leaving regiments to be assigned directly to armies or fronts, or to various *ad hoc* operational groups. Thus attempting to associate specific regiments with divisions during this period is a task beyond this work. Frustratingly, this was the period of the widest use of the LaGG-3.

From early 1943 replacement aircraft began to be sent directly to regiments as they served in the frontline, and these regiments in turn acquired a permanent link with their divisions, although there remained a few cases when

regiments were subsequently transferred to different divisions. A few elite regiments were also assigned directly to Air Army headquarters, these units generally performing special 'hunter' missions. Thus, it is much easier, and more meaningful, to associate regimental assignments during this period, which characterised the use of the La-5 and La-7.

The fact that there are twice as many regiments identified with the LaGG-3 as with the La-5 (despite the significantly larger production of the latter type) is misleading. From late 1941 through to late 1942, almost all fighter regiments had a statutory strength of 20 aircraft⁶ in two squadrons, and a number of these regiments were later disbanded or merged into other units. In contrast, almost all the regiments equipped with the La-5 were three-squadron regiments with a strength of 31 aircraft (boosted to 40 aircraft later in the war). None of these regiments were disbanded either, and the remaining two-squadron regiments were expanded up to strength. Of course there were also numerous LaGG-3 units which converted to Yak fighters rather than the La-5. And while there were some units (such as the famous 32 GIAP) which converted from the Yak to the La-5, generally, Lavochkin units had previously flown the LaGG. By late war this 'brand loyalty' amongst regiments had become even more evident in the assignment of La-7s and Yak-3s.

In the following lists, if a regiment used an aircraft type under both a regular number and a Guards designation, only the Guards designation is given.

Identified LaGG-3 units

(143 regiments)

Guards Regiments

1, 2, 3, 5, 9, 11, 21, 30, 40, 145, 159 and 163 GIAPs

Regular Regiments

2, 7, 13, 17, 18, 19, 21, 23, 24, 25, 26, 31, 33, 35, 41, 42, 46, 49, 68, 82, 84, 91, 92, 116, 145, 148, 149, 156, 157, 160, 162, 163, 164, 165, 166, 168, 170, 171, 172, 178, 182, 191, 192, 193, 197, 233, 234, 237, 238, 239, 240, 246, 247, 248, 249, 255, 263, 264, 267, 269, 270, 272, 273, 291, 297, 300, 348, 352, 402, 415, 431, 434, 435, 437, 440, 482, 494, 508, 512, 513, 516, 518, 519, 521, 522, 523, 524, 530, 564, 590, 609, 611, 737, 762, 772, 773, 785, 790, 791, 792, 805, 813, 826, 862, 863, 867, 926, 927, 931, 975, 979 and 987 IAPs

Naval Regiments

3 GIAP-KBF, 4 GIAP-KBF, 6 GIAP-ChF, 3 IAP-ChF, 7 IAP-ChF, 8 IAP-ChF, 9 IAP-ChF, 25 IAP-ChF, 27 IAP-SF, 31 IAP-TOF, 32 IAP-ChF, 38 IAP-TOF, 41 IAP-TOF, 62 IAP-ChF, 255 IAP-SF, 68 SAP-ChF, 30 MRAP-ChF and 118 MRAP-SF

Identified La-5 Units

(75 regiments)

10 IAK	
10 GIAD	111, 113 GIAP and 112 GIAP (with Yak-9)
15 GIAD	3, 180 and 181 GIAP
3 GIAD	32, 63 and 137 GIAP
8 GIAD	40, 41 and 88 GIAP
14 GIAD	177, 178 and 179 GIAP
194 IAD	530, 848 and 536 IAP (with Yak-1)
215 IAD	156, 263 and 813 IAP
229 IAD	159 and 163 GIAP and 979 IAP
279 IAD	92, 192 and 486 IAP
286 IAD	165, 721, 739 and 896 IAP
295 IAD	31, 116 and 164 IAP
309 IAD	49, 162 and 172 IAP
315 IAD	50, 171, 431 and 832 IAP (latter two with Yak-9)
322 IAD	2 GIAP, 482 and 937 IAP
330 IAD	161, 609 and 927 IAP
257 SAD	29 GIAP, 415 IAP and 957 ShAP (with Il-2m)

5 GIAP (11 GIAD)

11 GIAP (7 IAK-PVO)

115 GIAP (7 GIAD)

15 IAP (278 IAD)

19 IAP (redesignated 176 GIAP when it
re-equipped with La-7)

21 IAP (259 IAD)

33 IAP (106 IAD-PVO)

126 IAP (320 IAD-PVO)

181 IAP (235 IAD)

195 IAP (324 IAD)

233 IAP (234 IAD)

254 IAP (269 IAD)

279 IAP (286 IAD briefly)

401 IAP (2 GIAP-PVO)

495 IAP (328 IAD-PVO)

523 IAP (303 IAD)

562 IAP (318 IAD-PVO)

760 IAP (261 IAD)

785 IAP (36 IAD-PVO)

805 IAP (129 IAD)

826 IAP (9 IAK-PVO)

862 IAP (141 IAD-PVO)

907 IAP (148 IAD-PVO)

939 IAP (297 IAD-PVO - Transbaikai)

960 IAP (125 IAD-PVO)

1 Czech IAP

2 Czech IAP

1 GIAD-KBF 3, 4 and 10 GIAP KBF

Identified La-7 Units

(31 regiments)

3 GIAD	32, 63 and 137 GIAP
8 GIAD	40, 41 and 88 GIAP
10 GIAD	111, 113 and 112 GIAP (latter with Yak-3)
14 GIAD	177, 178 and 179 GIAP
215 IAD	156, 263 and 813 IAP
286 IAD	165, 721, 739 and 896 IAP (latter two with La-5FN)
295 IAD	31, 164 and 116 IAP (latter with La-5FN)
315 IAD	50, 171, 431 (with Yak-3) and 832 IAP (with Yak-9)
322 IAD	2 GIAP, 482 and 937 IAP
9 GIAP (303 IAD)	
29 GIAP (324 IAD)	
159 GIAP (229 IAD)	
176 GIAP (16 Air Army)	
523 IAP (303 IAD)	
1 Czech IAP	
4 GIAP-KBF (1 GIAD-KBF)	- received a few La-7s
17 IAP-TOF (7 IAD-TOF)	

Abbreviations

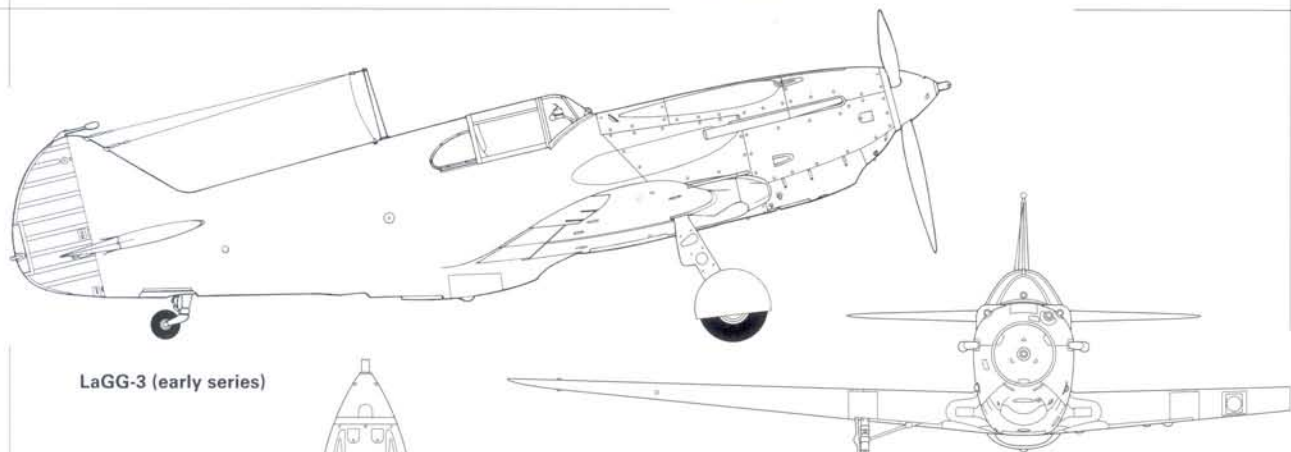
HSU	Hero of the Soviet Union
PVO	Anti-aircraft Defence
IAP	Fighter Aviation Regiment
IAD	Fighter Aviation Division
IAK	Fighter Aviation Corps
SAD	Composite Aviation Division
ShAP	Assault Aviation Regiment
MRAP	Naval Reconnaissance Aviation Regiment
ZAP	Replacement Training Regiment
G	Guards
-ChF	-Black Sea Fleet
-KBF	-Red Banner Baltic Fleet
-SF	-Northern Fleet
-TOF	-Pacific Ocean Fleet

Soviet Lavochkin Aces Roster

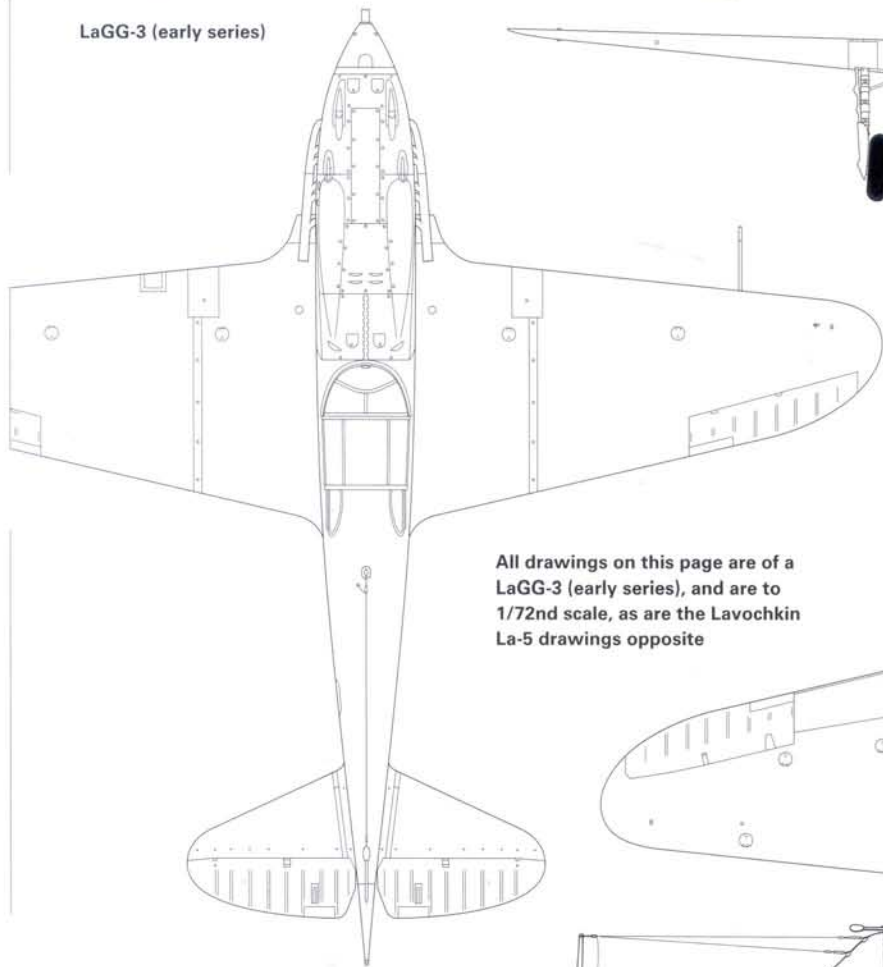
The following aces are known to have flown one or more types of LaGG/Lavochkin aircraft while scoring their victories. Many of them also flew other fighters as well. It is impossible in most instances to apportion their victories according to the type of aircraft flown at the time.

Name	Rank	Award	Unit	Victories (Ind & sh)	Date KIA
Kozhedub, Ivan Nikitoviich	Maj	3 x HSU	176 GIAP	62	
Evstigneev, Kirill Alekseevich	Capt	2 x HSU	240 IAP	53 & 3	
Skomorokhov, Nikolai Mikhailovich	Capt	2 x HSU	31 IAP	46 & 8	
Krasnov, Nikolai Fyodorovich	Maj	HSU	116 IAP	42 & 10	
Popkov, Vitalii Ivanovich	Capt	2 x HSU	5 GIAP	41 & 1	
Alelyukhin, Aleksei Vasil'evich	Capt	2 x HSU	9 GIAP	40 & 17	
Golubev, Vasilii Fyodorovich	Col	HSU	4 GIAP-KBF	39 & 12	
Luganskii, Sergei Danilovich	Maj	2 x HSU	270 IAP	38 & 6	
Lavrinenkov, Vladimir Dmitrievich	Maj	2 x HSU	9 GIAP	36 & 11	
Kamozin, Pavel Mikhailovich	Capt	2 x HSU	269 IAP	35 & 13	
Zaitsev, Vasilii Aleksandrovich	Lt Col	2 x HSU	5 GIAP	34 & 19	
Kitaev, Nikolai Trofimovich	Lt Col	HSU	40 GIAP	34 & 8	3/11/43
Gnido, Pyotr Andreevich	Maj	HSU	111 GIAP	33 & 7	
Kirilyuk, Viktor Vasil'evich	Lt	HSU	31 IAP	32 & 9	
Kulagin, Andrei Mikhailovich	Capt	HSU	163 GIAP	32 & 7	
Pokryshev, Pyotr Afanas'evich	Lt Col	2 x HSU	159, 154 IAP	31 & 7	
Kravtsov, Ivan Savel'evich	Capt	HSU	3 GIAP-KBF	31 & 4	
Kumanichkin, Aleksandr Sergeevich	Capt	HSU	41 GIAP	31 & 1	
Golovachyov, Pavel Yakovlevich	Capt	2xHSU	9 GIAP	31	
Markov, Vasilii Vasil'evich	Capt	HSU	116 IAP	31	
Amet-Khan, Sultan	Maj	2 x HSU	9 GIAP	30 & 19	
Arkhipenko, Fyodor Fyodorovich	Col	HSU	17 IAP	30 & 14	
Mudrov, Mikhail Ivanovich	Capt	HRF	3 GIAP	30 & 7	27/1/44
Novikov, Konstantin Afanas'evich	Capt	HSU	40 GIAP	30 & 6	
Knyazev, Vasilii Aleksandrovich	Capt	HSU	159 GIAP	29 & 9	
Merkushev, Vasilii Afanas'evich	Maj	HSU	270 IAP	29	PoW 4/7/44
Gubanov, Aleksei Alekseevich	Capt	HSU	111 GIAP	28 & 9	
Balyasnikov, Aleksei Ivanovich	Capt	HSU	113 GIAP	28 & 8	
Ignat'ev, Mikhail Trofimovich	Capt	HSU	111 GIAP	28 & 7	
Zelenkin, Mikhail Mikhailovich	Maj	HSU	156 IAP	28 & 4	
Romanenko, Ivan Georgievich	Maj	HSU	13 IAP-KBF	28 & 1	
Gorelov, Sergei Dmitrievich	Maj	HSU	111 GIAP	27 & 6	
Babailov, Pavel Konstantinovich	Capt	HSU	163 GIAP	27 & 4	14/10/44
D'yachkov, Aleksandr Alekseevich	Snr Lt	HSU	179 GIAP	27 & 1	31/3/45
Rogov, Boris Panteleevich	Snr Lt	-	111 GIAP	27	14/9/44
Lobanov, Aleksandr Vasil'evich	Snr Lt	HSU	41 GIAP	26 & 14	
Borodachyov, Viktor Ivanovich	Capt	HSU	40 GIAP	26 & 5	
Sytov, Ivan Nikitovich	Snr Lt	HSU	5 GIAP	26 & 4	16/10/43
Tokarev, Moisei Stepanovich	Maj	HSU	40 GIAP	26 & 2	8/7/43
Peskov, Pavel Il'ich	Maj	HSU	5 GIAP	26	
Likholetov, Pyotr Yakovlevich	Capt	HSU	159 IAP	25 & 5	13/7/45
Laveikin, Ivan Pavlovich	Maj	HSU	5 GIAP	24 & 15	
Gal'chenko, Leonid Akhimovich	Maj	HSU	19 GIAP	24 & 12	
Nazarenko, Dmitrii Pavlovich	Capt	HSU	40 GIAP	24 & 8	
Zudilov, Ivan Sergeevich	Capt	HSU	163 IAP	24 & 6	
Nazimov, Konstantin Savel'evich	Capt	HSU	254 IAP	24 & 2	23/12/44

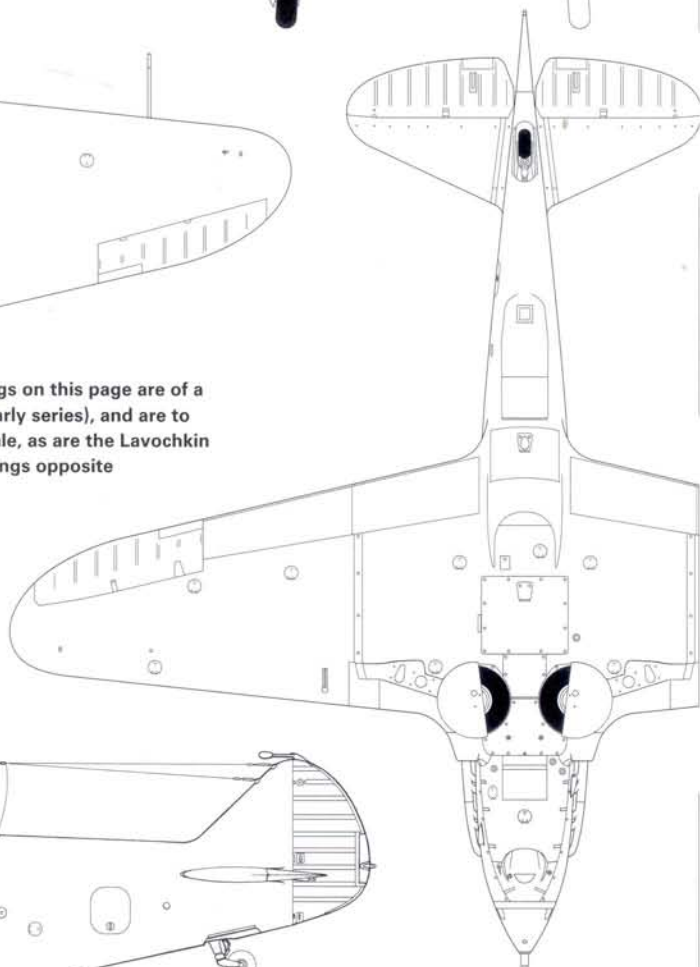
Name	Rank	Award	Unit	Victories (Ind & sh)	Date KIA
Yakubovskii, Pyotr Grigor'evich	Capt	HSU	31 IAP	23 & 20	
Gorokhov, Yurii Ivanovich	Capt	HSU	162 IAP	23 & 10	1/1/44
Artamonov, Nikolai Semyonovich	Capt	HSU	177 GIAP	23 & 8	26/3/45
Grachyov, Anatolii Aleksandrovich	Capt	HSU	159 GIAP	23 & 6	
Neustruev, Ivan Pavlovich	Maj	HSU	11 GIAP	23 & 6	
Timofeenko, Ivan Vasil'evich	Snr Lt	HSU	9 GIAP	23 & 6	
Sidorenkov, Vasilii Kuz'mich	Capt	HSU	254 IAP	23 & 2	
Bilyukin, Aleksandr Dmitrievich	Capt	HSU	196 IAP	23 & 1	
Belousov, Nikolai Petrovich	Capt	HSU	177 GIAP	23	
Konstantinov, Anatolii Ustinovich	Capt	HSU	85 GIAP	23	
Markov, Aleksei Ivanovich	Snr Lt	HSU	32 GIAP	23	
Ulitin, Ivan Semyonovich	Lt	HSU	116 IAP	23	20/5/44
Baklan, Andrei Yakovlevich	Capt	HSU	32 GIAP	22 & 23	
Maslov, Ivan Vasil'evich	Snr Lt	HSU	157 IAP	22 & 19	
Dzyuba, Pyotr Petrovich	Maj	HSU	85 GIAP	22 & 16	
Murashev, Aleksei Andrianovich	Capt	HSU	3 GIAP	22 & 9	
Novikov, Aleksei Ivanovich	Capt	HSU	17 IAP	22 & 8	
Bazanov, Pyotr Vasil'evich	Capt	HSU	3 GIAP	22 & 6	
Tsapov, Ivan Ivanovich	Capt	HSU	3 GIAP-KBF	22 & 6	
Dudnichenko, Viktor Markovich	Snr Lt	HSU	181 GIAP	22	
Fedotov, Andrei Andreevich	Maj	HSU	63 GIAP	22	15/12/43
Koblov, Sergei Konstantinovich	Snr Lt	HSU	182 IAP	22	
Makarov, Arkadii Sergeevich	Snr Lt	HSU	32 GIAP	22	
Miokov, Nikolai Dmitrievich	Maj	HSU	91 IAP	22	
Pantel'kin, Anatolii Aleksandrovich	Capt	HSU	116 IAP	22	14/3/45
Volodin, Aaanatolii Ivanovich	Capt	HSU	164 IAP	22	
Onufrienko, Grigorii Denisovich	Capt	HSU	5 GIAP	21 & 29	
Chislov, Aleksandr Mikhailovich	Lt Col	HSU	63 GIAP	21 & 13	
Korolyov, Vitalii Ivanovich	Maj	HSU	482 IAP	21 & 10	
Kratinov, Semyon Ustinovich	Capt	HSU	40 GIAP	21 & 7	
Kuz'min, Georgii Pavlovich	Maj	HSU	239 IAP	21 & 7	18/8/43
Savel'ev, Vasilii Antonovich	Maj	HSU	32 GIAP	21 & 6	
Shardakov, Igor' Aleksandrovich	Snr Lt	HSU	5 GIAP	21 & 6	
Starikov, Dmitrii Aleksandrovich	Snr Lt	HSU	11 GIAP-ChF	21 & 6	
Davidkov, Viktor Iosifovich	Col	HSU	40 GIAP	21 & 2	
Rudenko, Nikolai Sergeevich	Snr Lt	HSU	176 GIAP	21 & 2	
Kostylev, Georgii Dmitrievich	Snr Lt	HSU	3 GIAP-KBF	20 & 34	
Pavlov, Aleksandr Georgievich	Maj	HSU	41 GIAP	20 & 16	
Mironenko, Aleksandr Alekseevich	Lt Col	HSU	4 GIAP-KBF	20 & 10	
Smirnov, Oleg Nikolaevich	Capt	HSU	31 IAP	20 & 7	
Levitan, Vladimir Samoilovich	Capt	HSU	88 GIAP	20 & 6	
Grebenyov, Arkadii Dmitrievich	Maj	HSU	111GIAP	20 & 4	
Vishnyakov, Ivan Alekseevich	Maj	HSU	171 IAP	20 & 3	
Ryazantsev, Aleksei Fyodorovich	Maj	HSU	179 GIAP	20 & 1	
Lutskii, Vladimir Aleksandrovich	Maj	HSU	32 GIAP	20	
Lyusin, Vladimir Nikolaevich	Snr Lt	HSU	85 GIAP	20	
Pashkevich, Aleksei Vasil'evich	Maj	HSU	63 GIAP	20	
Voron'ko, Aleksandr Ivanovich	Maj	HSU	63 GIAP	20	
Korol'kov, Sergei Ivanovich	Capt	HRF	179 GIAP	19 & 18	
Samokhvalov, Nikolai Stepanovich	Snr Lt	HSU	126 IAP	19 & 9	14/8/44
Kuznetsov, Sergei Alekseevich	Maj	HSU	233 IAP	19 & 8	
Lobov, Georgii Ageevich	Maj Gen	HSU	322 IAD	19 & 8	



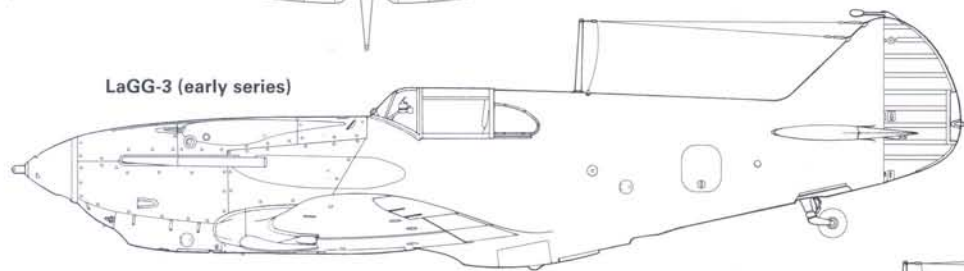
LaGG-3 (early series)



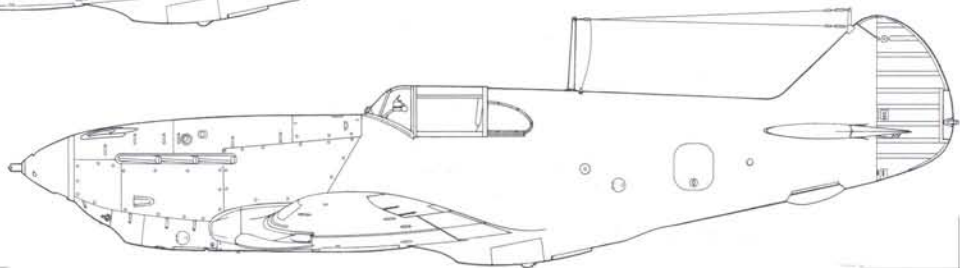
All drawings on this page are of a LaGG-3 (early series), and are to 1/72nd scale, as are the Lavochkin La-5 drawings opposite

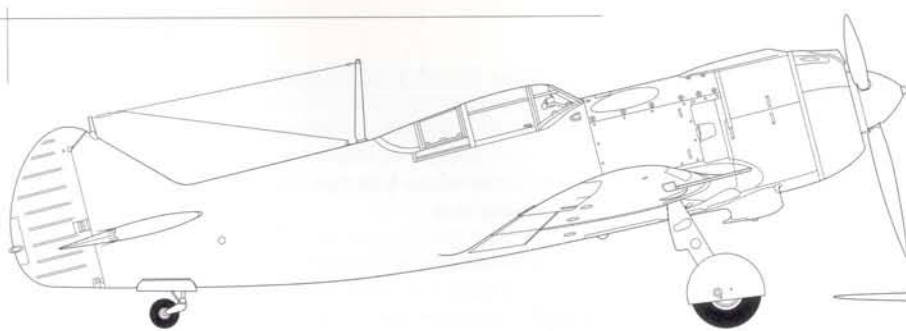


LaGG-3 (early series)

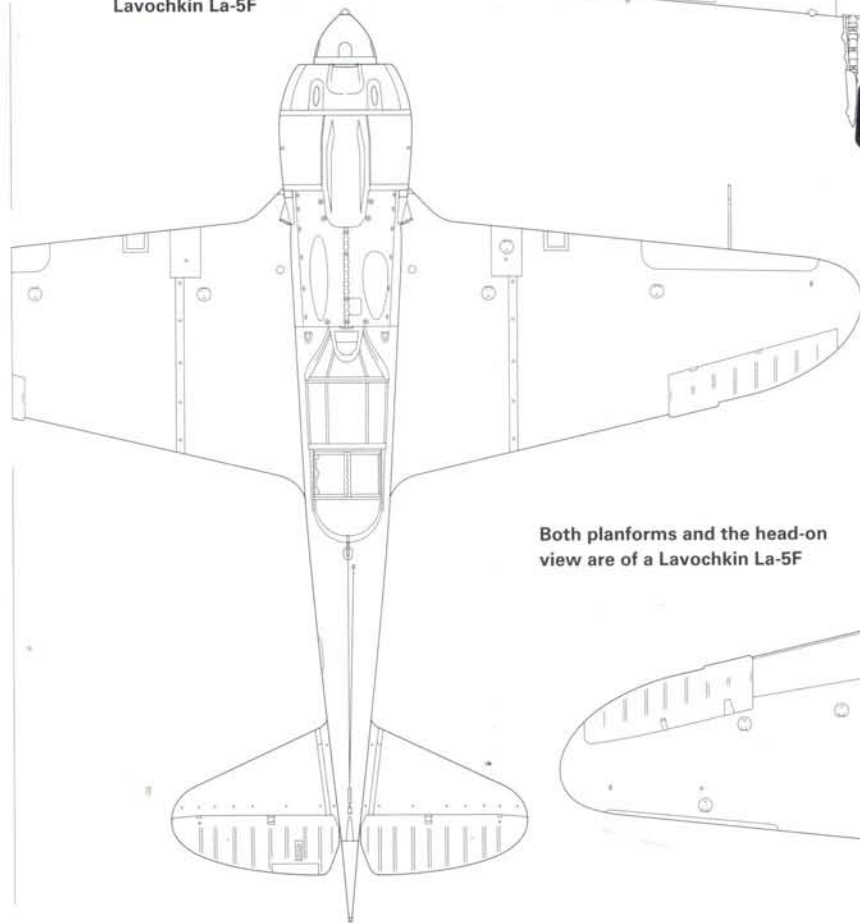
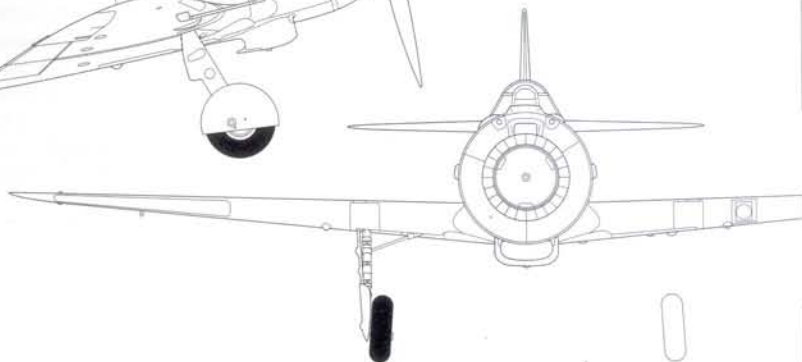


LaGG-3 (late series)

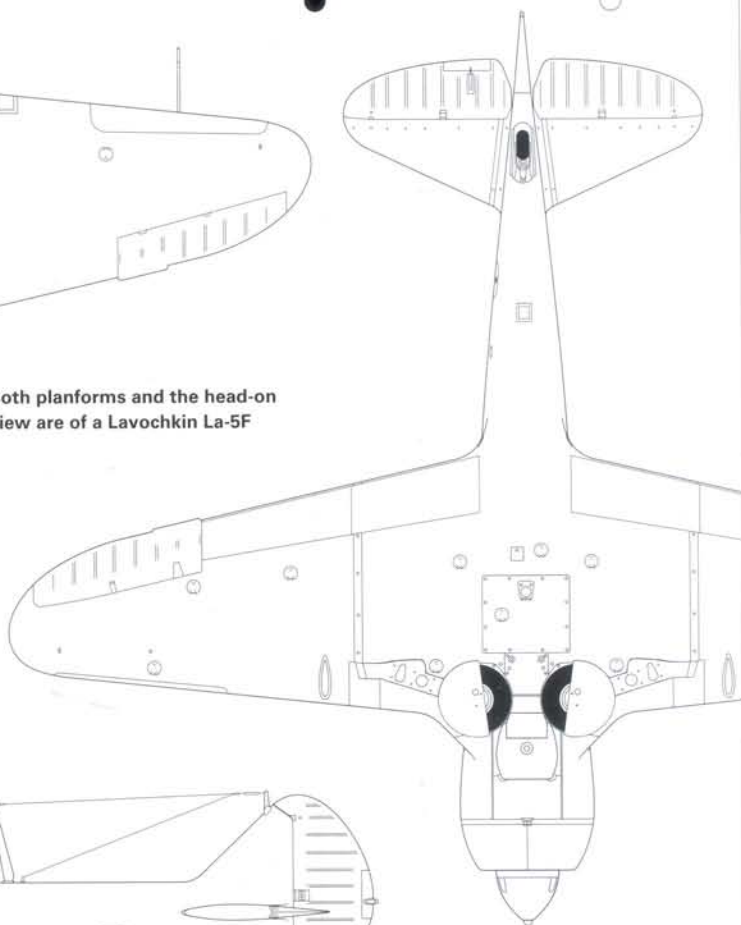




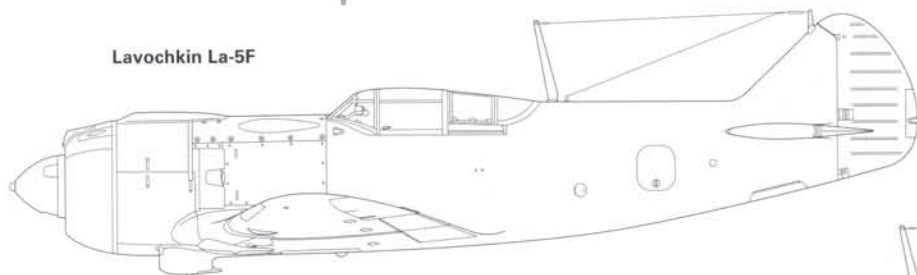
Lavochkin La-5F



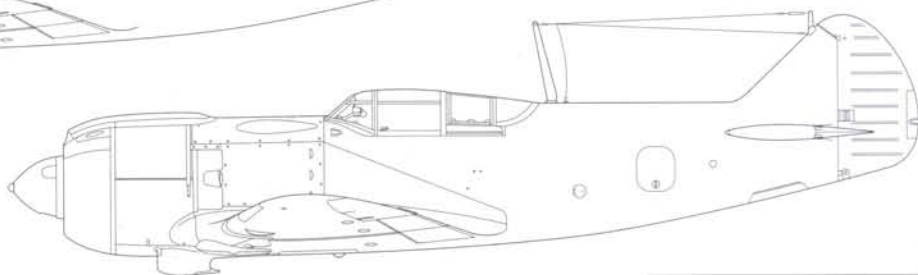
Both planforms and the head-on view are of a Lavochkin La-5F



Lavochkin La-5F



Lavochkin La-5FN



1

LaGG-3 Series 1 'White 54' of Capt Aleksandr Zaitsev, 145 IAP, Karelian Front, August 1941

Initial batches of the then new LaGG-3 came off the production line in the traditional VVS colours of solid dark green uppersurfaces and light blue undersurfaces. With the war going so badly, and fighters desperately needed at the front, there was not always time to add the new disruptive camouflage which was ordered in June 1941.

2

LaGG-3 Series 1 'White 76' of Capt Leonid Gal'chenko, 145 IAP, Karelian Front, late autumn 1941

Disruptive camouflage was eventually applied to most frontline aircraft by the end of 1941, groundcrews often simply painting fields of black onto the standard dark green – occasionally, a much darker green was used instead of black. The latter colour cannot be found in official paint tables, which means that it was probably created locally by mixing black with the standard green. During the winter months fighters would be camouflaged with temporary white paint, some aircraft being totally repainted and others only featuring partial fields. Gal'chenko's 'White 76' also shows the first application of his personal cat marking, which he adopted in September 1941.

3

LaGG-3 Series 1 of Maj Leonid Gal'chenko, 609 IAP, Karelian Front, summer 1942

When Gal'chenko was transferred to 609 IAP in October 1941, he took his cat-embellished LaGG-3 with him. Note that the 'temporary' white paint seems not to have been as temporary as had been intended, forcing groundcrews to paint it out with black – hence the fighter's non-standard three-colour camouflage scheme! The cat has also donned an appropriately darker shade, although it still boasts a white outline. Gal'chenko applied this marking to all his aircraft during his long combat career. The victory marks painted aft of the cockpit distinguish between victories credited as individual successes (red stars) and those shared with his formation (white outline stars only). Gal'chenko has also had a red star painted on the tip of the fighter's spinner. Finally, the LaGG boasted a small hammer-and-sickle on the landing gear doors.

4

LaGG-3 Series 11 'White 78' of Capt Viktor Mironov, 609 IAP, Karelian Front, summer 1942

Like Gal'chenko, Viktor Mironov also transferred from 145 IAP to 609 IAP in late 1941. He had his LaGG-3 decorated with a dramatic arrow marking in the spring of 1942, the motif earning him the nickname 'Black Arrow' within his regiment. Mironov had flown some 356 sorties and scored seven individual and 13 shared victories by the time he was killed in a training accident in an La-5 on 16 February 1943. A later series LaGG-3, 'White 78' arrived in the frontline already painted in the standard medium dark green and black camouflage scheme, with prominent red stars on its fuselage side and tail, as well as on the underwing surfaces.

5

LaGG-3 Series 35 'Yellow 6' of Capt Gerasim Grigor'ev, 178 IAP, autumn 1942

As of August 1942, Capt Grigor'ev had scored 13 of his 17 victories (two shared), all but the first of which had been achieved in the LaGG-3. 178 IAP was one of a handful of regiments that continued to use the LaGG-3 well into the final months (and quite possibly to the end) of the war.

6

LaGG-3 Series 29 'Red 52' of Snr Lt Tikhon Zhuchkov, 3 GIAP-KBF, winter 1943

This LaGG-3 is painted in a typical temporary winter white scheme, with traces of the underlying dark camouflage showing through as if the paint had only been roughly daubed on. In this case, the mottled finish appears to have been deliberate – often, it was the result of paint erosion by the elements. Zhuchkov was sent to the front in December 1942, and by the end of the war he had scored a total of 11 individual and 12 shared victories, earning him a HSU in March 1945.

7

LaGG-3 Series 29 'Red 59' of Capt Igor Kabarov, 3 GIAP-KBF, winter 1943

This aircraft was retrieved from a bog in early 1942, and after being repaired, it was allocated to early ace, and LaGG-3 proponent, Igor Kabarov. Following two spells in repair depots and service with another regiment, the aircraft again returned to 3 GIAP in late 1943.

8

LaGG-3 Series 29 'Red 30' of Capt Semyon L'vov, 3 GIAP-KBF, winter 1943

Capt L'vov's aircraft shows the effects of heavy weathering and excessive flying, the white finish being badly stained by exhaust deposits and oil leaks. Note that the original rudder has been replaced with one from a different machine, and that it not only lacks the red star, but is also considerably cleaner than the rest of the LaGG-3.

9

LaGG-3 Series 29 'White 34' of Jnr Lt Dmitrii Tormakhov, 269 and 267 IAP, North Caucasus, spring 1943

This aircraft is painted in the standard green and black camouflage for early 1943. The presentation of the side number is somewhat unusual, however, although such variations were not rare in the VVS. Originally serving with 269 IAP, Tormakhov and 'White 34' were transferred to 267 IAP when the former was deemed exhausted and sent to the rear in April 1943. A handful of other pilots who still had aircraft were also sent to 267 IAP as well. Tormakhov was almost certainly flying this machine when he was shot down in flames on 27 May 1943.

10

LaGG-3 Series 4 'Black LG-1' of Wt Off Eino Koskinen, 2/HLeLv 32, summer 1944

This aircraft was formerly the VVS's 'Red 29', and it sported an overall white camouflage finish until captured by the Finns. Following its repair, the fighter was repainted in standard Finnish camouflage and insignia, including prominent yellow recognition markings and the air force serial LG-1.

11

LaGG-3 Series 66 'White 43' of Yuri Shchipov(?), 9 IAP-ChF, Crimea, spring 1944

This famous machine has been linked with 'unknown' ace Yuri Shchipov, who is not mentioned in any official or unofficial documentation. A photo of the aircraft has been published, however, although this has not helped clear up the controversy surrounding its paint scheme. Some artistic representations have portrayed the LaGG in green and dark earth uppersurfaces, but such a finish was almost certainly never used on a LaGG. Indeed, the standard VVS finish was black and green until July 1943, when the fighter scheme was changed to dark and medium grey uppersurfaces. Therefore, it is likely that 'White 43' was camouflaged in the grey scheme seen here, although a finish of black and green cannot be totally ruled out. One aspect of its markings that is particularly interesting is the coexistence of an early war style small star without a border on the tailfin alongside a large late war star on the fuselage and underwing surfaces – the latter was only adopted towards the end of 1943.

12

LaGG-3 Series 66 'White 932' (pilot unknown) of 88 IAP, North Caucasus Front, summer 1943

88 IAP was one of a number of regiments partially equipped with aircraft purchased with funds raised by the Georgian SSR. The inscription worn by the LaGG has been applied in Georgian script, and it reads '*Sabtkhota Sakartvelo*' or 'Soviet Georgia'. The aircraft's individual numbering is unusual for its employment of three digits, the thickness of each digit and their location on the tail. 88 IAP became 88 GIAP on 5 February 1944, at which point it was still flying the LaGG-3. The regiment eventually re-equipped with La-5FNs three months later.

13

La-5 'White 66' (pilot unknown) of *Eskadrilya Valerii Chkalov*, 159 IAP, Karelian Front, near Leningrad, spring 1943

Inscribed with the *Eskadrilya Valerii Chkalov* titling, this aircraft was one of 13 identically-marked La-5s issued to Ivan Kozhedub's regiment, which was then in action over the northern Ukraine, in the spring of 1943. Other *Eskadrilya Valerii Chkalov* aircraft were also sent to 166 IAP, 32 GIAP and 4 GIAP-KBF, where they were still in frontline service as late as spring 1944, although their date of arrival with these units remains unclear. Whilst with 159 IAP, these aircraft were associated with aces such as Pyotr Likholetoy and Vladimir Serov, as well as Ivan Kozhedub.

14

La-5 'Yellow 40' (pilot unknown) of *Eskadrilya Valerii Chkalov*, 4 GIAP-KBF, near Leningrad, summer 1943

This profile artwork shows the starboard side inscription of a typical *Eskadrilya Chkalov* aircraft. The inscription reads 'Ot

kholkhoznikov i kholkhoznits Gor'kovskoi oblasti ('from the collective farmers and women of Gorkii Region').

15

La-5 (pilot unknown) of the *Eskadrilya Aleksandr Chekalin*, 960 IAP, Moscow Air Defence District, February 1943

960 IAP was a PVO regiment that appeared in the Soviet order of battle from September 1942 onwards, seeing comparatively little combat. Initially equipped with a small number of I-16s and MiG-3s, it received a squadron of La-5s in February 1942. During the summer of 1943, 960 IAP was reassigned to Frontal Air Defence near Bryansk. This regiment is best known for its handful of Spanish pilots, these men having emigrated to the USSR following the defeat of the Republican forces in the Spanish Civil War. The most famous of these were Vicente Beltran and Francisco Merono, although information about Spanish pilots in the Soviet Union is vague and unreliable, and suggestions that either may have scored 20 victories are not convincing. This aircraft sports a standard winter finish and typical presentation inscription, which reads '*Eskadrilya named for Hero of the Soviet Union Aleksandr Chekalin*'. Presentation aircraft occasionally had no side numbers, as is the case here. Aleksandr Chekalin was a member of a partisan detachment who was awarded the HSU after being executed by the Germans in November 1941.

16

La-5 'White 84' of Vicente Beltran, 960 IAP, Bryansk Front, May 1943

This La-5 bears a patriotic slogan rather than a presentation inscription, the wording translating as 'Viva la revolution socialista en SSSR', clearly identifying its pilot as being a Spaniard. It is not known whether the lightning flash was an individual touch or a unit-wide marking.

17

La-5 'White 15' of Capt Georgii Kostylev, 4 GIAP-KBF, late summer 1943

Although most sources have linked this famous aeroplane with Kostylev's service in 3 GIAP, he in fact flew only older aircraft with the regiment. In reality, the ace flew this La-5 only after joining 4 GIAP-KBF in late August 1943. Aside from the fighter's dramatic mouth, it also boasts a guards badge beneath the cockpit which has had the standard banner titling *Gvardiia* (Guards) replaced with the word *slava* (glory). Note the 42 victory stars painted on either side of the national marking. The inspiration behind the mouth marking remains unknown, and there was at least one other pilot in the Baltic Fleet who used a near identical marking.

18

La-5F 'White 14' "*Vesyolye Rebyata*" of Snr Lt Aleksandr Masterkov, 5 GIAP, November 1943

This aircraft was one of two presentation La-5Fs paid for by Leonid Utesov's Jazz Orchestra and issued to 5 GIAP in November 1943. Utesov and his 'big band' were among Soviet Russia's most popular musicians, famed for their 1934 film *Vesyolye Rebyata* (*Jolly Fellows*), which is also the inscription painted beneath the fighter's cockpit. The

inscription on the starboard side reads "Ot dzhaz-orkestra L. Utesova" (Leonid Utesov's Jazz Orchestra). Both aircraft survived in service with 5 GIAP until 1945.

19

La-5F of Maj Leonid Gal'chenko, Deputy Commander 324 IAD, Karelia, 1944

Gal'chenko was issued with this La-5F when he joined the staff flight of 324 IAD in July 1943, the ace keeping it until war's end. Of course his famous 'cat' soon appeared on the tailfin, together with diagonal stripes, which are probably unit identification marks, and his victory stars. The style of presentation for the latter (stencilled onto a white 'board') was common among VVS units, and particularly prevalent within 7 Air Army units on the Karelian Front.

20

La-5F 'White 20' of Capt Ivan Khaustov, 21 IAP, Baltic region, summer 1944

It seems likely that 21 IAP ace Capt Ivan Khaustov flew this machine, as he is the only pilot to have served with this regiment whose score is known to have exceeded the nine individual and five shared victories marked below the fighter's cockpit. One source credits him with ten individual and 12 shared victories, while another work of reference lists his score as 15 individual kills. Note that the fighter employs different colours for the cowl and the propeller spinner, one certainly denoting the regiment within the division, and the other the squadron within the regiment, although which is which is impossible to say!

21

La-5FN 'White 68' of Snr Lt Georgii Baevskii, 5 GIAP, Ukraine, December 1943

Issued new to 19-kill ace Georgii Baevskii in September 1943, this aircraft was fatally damaged by the rear gunner of an Fw 189 on 12 December 1943 near Apostolovo, forcing its pilot to land in hostile territory.

22

La-5FN 'White 62' of Snr Lt Georgii Baevskii, 5 GIAP, July 1944

Badly injured in a flying accident in March 1944, Baevskii was off flying duty until July of that year, when he was allocated this particular La-5FN. It remained his mount until war's end.

23

La-5FN 'White 14' of Capt Ivan Kozhedub, Snr Lt Pavel Bryzgalov and Capt Kirill Evstigneev, 240 IAP (later 178 GIAP), May 1944 through to May 1945

This donation aircraft was presented to Ivan Kozhedub on 2 May 1944, and upon his transfer to 176 GIAP, it was handed over to his deputy, Bryzgalov, who flew it until October. Fellow ace Evstigneev then acquired the La-5FN following a spell in hospital recuperating from wounds. The inscription on the fighter's seldom photographed port side read 'In the name of Hero of the Soviet Union Podpolkovnik (Lt Col) Konev, N'. On the right side was the inscription 'From the kolkhoznik (collective farmer) Konev, Vasilii Viktorovich'. This aeroplane was paid for with funds raised by Vasilii Konev

in honour of his relative, Lt Col Konev, who had perished in the fighting on the western borders in 1941, and who had purportedly been awarded the HSU. Strangely, no such Lt Col N Konev can be found in the official lists of HSU recipients.

24

La-5FN 'White 52' Mongol'skii Arat of Capt Nikolai Pushkin, 2 GIAP, September 1943

This aircraft was one of 13 La-5FNs whose construction was funded by the workers of Mongolia, and which were in turn issued to 2 GIAP on 25 September 1943. Nikolai Pushkin scored 19 individual and eight shared victories, many of which were claimed in this very machine. Fellow ace Aleksandr Maiorov also flew a *Mongol'skii Arat* La-5FN.

25

La-5FN 'White 01' of Capt Vitalii Ivanovich Popkov, 5 GIAP, autumn 1944

Although Popkov was an exceptional pilot, his La-5FN was marked in a very typical finish of dark and medium grey. The two white bands around the fuselage were formation identification markings.

26

La-5FN 'Silver 15' of Capt Pyotr Likholetov, 159 IAP, Karelian Front, summer 1944

The most interesting aspects of the markings on Likholetov's aircraft are the silver surrounds to the red stars and the slogan 'For Vaska and Zhora', which appeared on both sides of the fuselage. While the use of metallic paint is unfamiliar in the West, in the Soviet Union aluminium paint was available in quantity, as it was used as a primer and, pre-war, as an overall finish. The inscription commemorated two of Likholetov's flightmates who had been killed during a particularly bloody engagement in March 1942 while the regiment was flying Kittyhawks.

27

La-5FN 'White 93' of Capt Vladimir Orekhov, 32 GIAP, summer 1943

32 GIAP was one of the most elite of all Soviet Guards regiments, and it converted to the La-5FN in early 1943. Maj Orekhov served with the unit for much of the war, and he often flew with Vasilii Stalin. Soviet fighter colours and markings changed drastically in 1943, for aside from the adoption of dark and light grey camouflage, regiments and divisions also began to introduce formation markings such as coloured noses and tail and fuselage stripes. The latter helped with the control of units in the air, and served to distinguish one regiment from another – most aircraft were still devoid of radios. Note the 16 victory stars painted beneath the cockpit.

28

La-7 'White 27' of Maj Ivan Kozhedub, 176 GIAP, Germany, late April 1945

Kozhedub was issued with this factory-fresh La-7 whilst transitioning onto the new fighter in August 1944. He duly took it with him when he was transferred to 176 GIAP that same month. The fighter arrived in the frontline with solid grey uppersurfaces and light blue undersides, to which regimental red nose and white tail markings were hastily

added. Kozhedub initially had 48 victory and two HSU stars marked beneath the cockpit, but by the time Berlin fell his tally of victory stars had increased to 62. A third HSU star would also be added on 18 August 1945.

29

La-7 'White 18' of Maj Aleksandr Kumanichkin, 176 GIAP, Germany, February 1945

Kumanichkin's fighter shows identical formation markings to those worn by Ivan Kozhedub's fighter seen in the previous profile. Beneath the cockpit are 28 victory stars for the kills Kumanichkin had scored by February 1945 – he claimed three more during the Battle for Berlin.

30

La-7 'White 23' of Maj Aleksandr Orekhov, 32 GIAP, Germany, early 1945

Aleksandr Orekhov had been promoted to major in early 1944, and during the summer of that same year his regiment converted to the La-7. By the end of the war Orekhov had completed 420 sorties and scored 19 individual and two group victories, as well as four aircraft destroyed on the ground. Note that only the 19 individual victories are marked on the aircraft – many Soviet aces chose not to mark their shared kills.

31

La-7 'White 93' of Lt Col Sergei Dolgushin, 156 IAP, Germany, April 1945

The red nose was a formation marking for 8 IAK, and the red and white tail stripes almost certainly signified an aircraft assigned to 215 IAD. 156 IAP was controlled by these units. On the fighter's fin is a small yellow Russian 'E' (marked as a 3) for *Elbinskii*, signifying the regiment's honorific title, whilst on its nose is the HSU star, this award having been bestowed upon Sergei Dolgushin in May 1942.

32

La-7 'White 17', flown by Maj Vladimir Lavrinenkov, CO of 9 GIAP, East Prussia, December 1944

Maj Lavrinenkov used '17' as his personal number throughout the war, whilst the lightning bolt marking on either side of the fuselage was similar to the symbol applied by the *Normandie* Regiment to its Yaks. Both units served in the same division

33

La-7 'White 23' of Capt Pavel Golovachyov, 9 GIAP, East Prussia, December 1944

Golovachyov destroyed a Ju 88 reconnaissance aircraft by ramming it in this very aircraft on 30 December 1944. Subsequently repaired, 'White 23' was used by the ace to down no fewer than four Fw 190s in two engagements on 18 January 1945.

34

La-7 'White 24' of Maj Sultan Amet-Khan, 9 GIAP, East Prussia, December 1944

Sultan Amet-Khan scored the last three of his 30 individual and 19 shared victories in this La-7. Note both the lightning bolt marking mid fuselage and the ace's personal motif on the nose.

35

La-7 'White 14' of Capt Aleksei Alelyukhin, Deputy CO of 9 GIAP, East Prussia, December 1944

As its inscription declares, this aircraft was donated to *Alekseyu Alelyukhinu ot kollektiva tresta No.41 N.K.A.P* (to Aleksei Alelyukhin from the collective of Factory No.41 of the People's Commissariat of the Aviation Industry). The same titling was repeated on the starboard side, although this time outlined in white. The dedication inscription seems to have pre-empted the application of the unit's standard lightning bolt marking.

36

La-7 'White 33' of Capt Pyotr Bazanov, 3 GIAP, Germany, spring 1945

Although a 22-kill ace, Bazanov failed to score a single victory in the La-7 due to the lack of opposition in the final months of the war. His factory-fresh fighter has been camouflaged in a typical late war scheme.

Back cover

La-7 'White 44' of Maj V I Kovalyov, Deputy CO of 482 IAP, 1945

V I Kovalyov is one of those 'problematic' aces often encountered in Russian sources, for he is known only from identification in a photograph, and is not mentioned elsewhere in official documentation. His La-7 has 20 red victory stars outlined in white and ten white ones outlined in red, indicating 20 individual and ten shared victories. Kovalyov may well be one of those aces who became 'invisible' after the war because of his politics. Or perhaps the Russian source who identified him in the photograph was mistaken? In any case, his La-7 boasts a red cowling and two diagonal stripes on the tail as unit identification markings. The similarity of these markings to those of Maj Orekhov's aircraft from 32 GIAP reinforce the questions surrounding the true identification of the pilot of this La-7.

INDEX

Figures in **bold** refer to illustrations, plates are shown as plate number(s) with caption locators in brackets

aces roster 88-9

Aleksandrov, Sr Lt N V **25**
 Alekukhin, Maj Aleksandr **p135**(57, 95), 76-7, **76-7**
 Amet-Khan, Maj Sultan **p134**(57, 95), 78-9, **78-9**
 Arado Ar 234 **72**
 Avdeev, Col M V **26**

Baevskii, Ssr Lt Georgii 39-42, **p121**(54, 94)
 Barkhorn, Gerard **76**
 Bazanov, Capt Pyotr **33**, **p136**(57, 95)
 Bell P-39 10, 13, 25, 74, 76, 79
 Beltran, Vicente **p116**(52, 93)
 Belyasnik, Maj Pyotr **38**
 Bishop, Maj 19
 Blagoveshchenskii, Gen 58-9
 Boeing B-17 Flying Fortress **83**
 Boikov, Pavel **74**
 Borisov, Capt Ivan 79, **79**
 Bychkov, S N **64**
 Bryzgalov, Ssr Lt Pavel **p123**(54, 94), 63-4, 66, **68**

Chikalov, Valerii **61**
 Chuprikov, Col 79, 84-5

Delfino, Maj Louis **75**
 Dolgushin, Lt Col Sergei **p131**(56, 95), 73-4
 Dornier Do 217 **81**

Efimov, Matvei **18**
 Efremov, Maj Vasilii 35-7
 Ettel, Wolfgang **26**
 Evstigneev, Capt Kirill **p123**(54, 94), 62, 65-70, **69**

Fiat G.50 **15**
 Findeisen, Hptm Herbert **27**
 Finland
 use of LaGG-3 28-9, **28**, **p110**(51, 93-4)
 war against 11, 13-15, **14**, 18-19, 28-9, 46, 48
 Focke-Wulf
 Fw 189 34, 40-1, 44
 Fw 180 6, 15, 19-21, 27-8, 38-9, 42-3, 45-7, 60, 64, 66-8, 70,
 77-82, 84, 85

Gafchenko, Maj Leonid 11-12, **12**, **p12**(14-19, 92), **p119**(53, 94)
 Garannin, Maj 59
 Glinkin, Sergei **37**
 Golovachyov, Capt Pavel 77-8, **p133**(57, 95)
 Golubev, Col Vasilii 15, **38**, **72**
 Gorbatyuk, Lt Col Evgenii 72-3
 Gorbunov, Vladimir 6, 7
 Gorovets, Aleksandr 47-8
 Grigor'ev, Capt Gerasim **p15**(50, 92)
 Gromakovskii, Lt Vladimir 82, 84
 Gudkov, Mikhail **7**

Heinkel He 111 21, 27, 36, 40, 41, 65-6
 Henschel
 Hs 126 16-17
 Hs 129 **66**

Ilyushin Il-2 20, 25, 27, 34, 43, 60

Japan, war against 7, 10
 Junkers
 Ju 52/3m **33**
 Ju 87 11, 14, 17, 23-7, 34, 36-7, 41-2, 44, 46, 48, 59, 63-6,
 68-9, 76
 Ju 88 12, 14, 16-17, 19, 22, 24, 27, 34, 36-9, 41-2, 45-6, 69, 77

Kabarov, Capt Igor 6, 15-21, **16**, **p17**(50, 92)
 Kal'sin, Pyotr **41**
 Kamozin, Pavel 24-5
 Kardanov, Jnr Lt Kubati 22-3
 Keyser, Hans-Joachim **28**
 Khaldeev, Vladimir **16**
 Khaustov, Capt Ivan **p120**(53, 94)
 Khryaev, Sr Lt V I **24**
 Klimov

M-105 9, 30
 M-105P 6-9, **8**
 M-105PF 9
 Knyazev, Vasilii **22**
 Korobovskii, Lt P I **20**
 Koskinen, Wt Off Eino **28**, 29, 29, **p110**(51, 92-3)
 Kostylev, Capt Georgii 14-19, **35-7**, **p117**(53, 93)

Kovalyov, Maj V I **95**
 Kozhedub, Maj Ivan **31**, **45**, **p123**(54, 94), **p128**(55, 94-5), 61-70,
63, 79-85, **79-80**
 Kramarenko, Sergei **82**, **85**
 Krasnov, Maj Nikolai 43-4
 Kravtsov, Capt Ivan **67**
 Kreshinski, Lt Hans-Joachim **28**
 Kulagin, Andrei **21**, **25**
 Kumanichkin, Maj Aleksandr **p129**(56, 95), 82, 84-5
 Kuz'min, B M **11**

L'vov, Capt Semyon **16**, **p18**(50, 92)
 Lavoiskin 36, 40, 41
 Lavochkin, Semyon 6, 6, 30, **71**, **72**
 LaGG-1 6, 7
 LaGG-3 **7**, **14-15**, **20**, **67**
 armament 7-9, **9**, **19**
 construction 7-9, **8-9**, **13**
 development 6
 handling 6, **8**, **20**
 in Finnish service 28-9, **28**, **p110**(51, 93-4)
 line drawings **90-1**
 losses 13-14, **13-15**, 17-19, 22, 25, 27, **28**, 29
 night fighting **21**
 operating units 7, 10-29, **10-11**, **16**, **20-1**, **23-4**, **26**, **28**, **32**, 34,
 36, 42-4, 48, 61, 73, 74, 76, 77, 79, 86
 performance 8-9, 16, 30-1
 production 10
 shortcomings 7-11, **8**, **11**
 successes 11-28, 36-7, 42-4, 77
 Srs 1 **9**, **9-13**, **28**, **49**(92)
 Srs 4 **9**, **12**, **14**, **28-9**, **51**(92-3)
 Srs 8 **9**
 Srs 11 **9**, **49**(92)
 Srs 23 **9**, **19**
 Srs 29 **9**, **16**, **26**, **50**(92), **51**(92)
 Srs 35 **8**, **10**, **16-17**, **28**, **28-9**, **50**(92)
 Srs 66 **9-10**, **21-3**, **51**(93)
 La-5 **31**, **33**, **36**, **52**(93), **53**(93)
 armament 30
 development 30
 fuel system 31-2, 62
 handling 30-1, 60
 losses 35, 37-8, 43, 46, 63, 69
 operating units 20-4, 32-48, **32-5**, **38**, **44-7**, 58-64, **64-5**, 70,
 72, 79, 84, 86
 performance 6, 30-1, 60, 62, 64
 production 10, 30, 32
 shortcomings 30-1
 Spanish pilots **34**, **83**
 successes 15, 32-5, **32**, 37-40, 43, 45-8, 61, 63-6, 68-70
 La-5F 12, 31-2, **32-3**, **40**, **53**(93-4), **60**, **91**
 operating units **30**, **38**, 39-40, **39**, 45, **47**, **61**, **67**, **70**, 86
 successes 39
 La-5FN 32, **32**, **43**, **54-5**(94), 58, 71-2, **91**
 losses 41
 operating units **35**, 41, 45, 47, **58**, 59, 61, **61-3**, 66, 67, 73, 86
 performance 6, 32
 shortcomings 32
 successes 41-2, 59, 67
 La-5-M 71 **71**, **71**
 La-5UTI **60**, **60**
 La-7 42, 44, **55-7**, **72-7**, **79**, **83**, **Back Cover**(94-6)
 armament **71**, **83**
 friendly fire 63-4
 gun cameras 84-5
 handling 31
 improvements 71
 losses 75
 operating units 33, 42, 60, 68, **69**, 72-85, **78-9**, **85**, 86
 performance 72
 shortcomings 72, 75
 successes 72-4, 77-85
 Lavrenkov, Maj Vladimir **p132**(56, 95), 74-6
 lend-lease **62**
 Likholeto, Capt Pyotr **45**, 47, **47**, **p126**(55, 94), **58**
 Lobanov, Ssr Lt Aleksandr **42-3**
 Lörzer, Lt Otto-Bruno **27**
 Luftwaffe units
 JG53
 JG54 27-8
 StG 2 17
 ZG76 12
 Lukin, Lt Afanasii **24**

Maitrov, Maj Aleksandr **61**
 Maksimenko, Vasilii **22**
 Mares'ev, Maj Aleksai **73**
 Maslov, Sr Lt B V **20**
 Masterkov, Ssr Lt Aleksandr **39**, **p118**(53, 93-4)
 Melikhov, Maj V I **24**
 Meronon, Francisco **34**

Messerschmitt
 Bf 109 6, 12-13, 16-21, 23-38, 36-8, 40-1, 43-4, 46, 61-9,
 76-9, 81, 85
 Bf 110 12-13, 19, 25, 36, 40, 62
 Me 210 **27**
 Me 262 72, 79, 82
 MiG-3 6, 10, 12, 34, 42-3, 45, 72, 74, 79, 84
 Mikhailov, Ssr Lt Vladimir **24**
 Mironov, Capt Viktor **11**, **p14**(49, 92)
 Morozov, Col Anatolii **75**
 Mudretsov, Valentin **69**
 Mukhin, Vasilii 63-4, 66, 68
 Myasnikov, Capt 19

Nazarenko, Capt Dmitrii **33**
 Nazimov, Ssr Lt Konstantin **32-3**
 Normandie-Nieman Regiment 74-6
 North American P-51 Mustang **84**
 Novikov, Lt Konstantin **33**

Onufrienko, Col Grigori 42-4
 Operation *Barbarossa* 7, 10-11
 Orehkov, Maj Aleksandr **p130**(56, 95)
 Orehkov, Capt Vladimir **p127**(55, 94)
 Orlov 82, 85
 Ostermann, Obit Max-Helmut **27**

Pabst, Uffz H **26**
 Pashkevich, Aleksei **73**
 Pavlov, Maj Aleksandr **42-3**
 Pavlov, Maj Ivan **35**
 Petlyakov Pe-2 23, 28-9, 38, 62, 64, 81
 Pokryshev, Lt Col Pyotr **45**
 Polikarpov
 I-15bis 13, 61, 74
 I-16 10-13, 16, 22-3, 32, 34, 39, 45, 61, **67**, 72-4, 76-7,
 79, 84
 I-153 18-19, 24, 78, 79
 Po-2 **23**
 Polyak, Capt I K **20**
 Popko, Jnr Lt Mikhail 69-70
 Popkov, Capt Vitalii 36-9, **p125**(55, 94)
 Puzhkin, Capt Nikolai **61**, **p124**(54, 94)
 PVOs
 Leningrad **7**
 Moscow **7**, **11**
 Pylaev, Capt Evgenii 23-4

Republic P-47D Thunderbolt **62**
 Rodchenko, Valentin **64**

Samozvants'ev, Capt M F **24**
 Shashkevich, Gerhard 12-13
 Semyonov, Capt Aleksandr 48, 58-61, 62
 Serov, Ssr Lt Vladimir 45-6, **45**
 Sharapov, Lt 80
 Shcherbakov, Ivan **80**
 Shchipov, Lt Yuri **22**, **p111**(51, 93)
 Shilkov 19-20
 Shvetsov
 ASH-82F 31-2, **31**, **70**
 M-71 **71**
 M-82 6, 30-1
 Skomorokhov, Nikolai 44-5, **44**
 Sorokin, Evgenii **37**
 Sukhoi Su-2 **30**
 Sukov, Capt Arkadii 27-8

Titarenko, Maj Dmitrii 79-84
 Tormakhov, Jnr Lt Dmitrii 25-7, **26**, **p19**(51, 92)
 Trontli, Lt Nils **46**
 Tupolev SB-2 **18**

Utkin, Viktor **64**

Wefers, Obfw Heinrich **28**

Yakovlev
 Yak-1 6, 9-10, 16, 20, 23, 37, **58**, **67**, 74-5, 79
 Yak-3 74-6, 80, 82
 Yak-7B **27**
 Yak-9 **6**
 Yak-9U **42**
 Yakushin, Lt Col **58**

Zaitsev, Capt Aleksandr 12-13, **p11**(49, 92)
 Zaitsev, Capt Vasilii 34-5, 41, **75**
 Zaramenskikh, V A **11**
 Zelenkin, Maj Mikhail **74**
 Zhigulenko, **64**
 Zhuchkov, Ssr Lt Tikhon **17**, **p16**(50, 92)
 Zotov, Ssr Lt Viktor 46-7

Related titles & companion series from Osprey

AIRCRAFT OF THE ACES (ACE)

Experiences and achievements of 'ace' fighter pilots

1855324474	ACE	001	MUSTANG ACES OF THE EIGHTH AIR FORCE
1855324482	ACE	002	BF 109 ACES OF NORTH AFRICA AND THE MEDITERRANEAN
1855324865	ACE	003	WILDCAT ACES OF WORLD WAR 2
1855325012	ACE	004	KOREAN WAR ACES
1855325756	ACE	005	LATE MARK SPITFIRE ACES 1942-45
1855325187	ACE	006	FOCKE-WULF Fw 190 ACES OF THE RUSSIAN FRONT
1855325837	ACE	007	MUSTANG ACES OF THE NINTH & FIFTEENTH AIR FORCES & THE RAF
1855325306	ACE	008	CORSAIR ACES OF WORLD WAR 2
1855325950	ACE	009	FOCKE-WULF Fw 190 ACES OF THE WESTERN FRONT
1855325969	ACE	010	HELLCAT ACES OF WORLD WAR 2
1855324873	ACE	011	BF 109/DIE ACES 1939-41
1855326272	ACE	012	SPITFIRE MARK VII ACES 1939-41
1855325292	ACE	013	JAPANESE ARMY AIR FORCE ACES 1937-45
1855326337	ACE	014	P-38 LIGHTNING ACES OF THE PACIFIC AND CBI
1855326329	ACE	015	SOVIET ACES OF WORLD WAR 2
1855326353	ACE	016	SPITFIRE MARK V ACES 1941-45
1855326345	ACE	017	GERMAN JET ACES OF WORLD WAR 2
1855325977	ACE	018	HURRICANE ACES 1939-40
1855326981	ACE	019	P-38 LIGHTNING ACES OF THE ETO/MTD
1855326965	ACE	020	GERMAN NIGHTFIGHTER ACES OF WORLD WAR 2
1855327260	ACE	021	POLISH ACES OF WORLD WAR 2
1855327279	ACE	022	IMPERIAL JAPANESE NAVY ACES 1937-45
185532783X	ACE	023	FINNISH ACES OF WORLD WAR 2
1855327295	ACE	024	P-47 THUNDERBOLT ACES OF THE EIGHTH AIR FORCE
1855327538	ACE	025	MESSERSCHMITT BF 110 ZERSTÖRER ACES OF WORLD WAR 2
1855327805	ACE	026	MUSTANG AND THUNDERBOLT ACES OF THE PACIFIC AND CBI
1855327791	ACE	027	TYPHOON AND TEMPEST ACES OF WORLD WAR 2
1855328984	ACE	028	FRENCH ACES OF WORLD WAR 2
1855329050	ACE	029	BF 109/FIG ACES ON THE WESTERN FRONT
1855329069	ACE	030	P-47 THUNDERBOLT ACES OF THE NINTH AND FIFTEENTH AIR FORCES
1855329077	ACE	031	LONG REACH VIII FIGHTER COMMAND AT WAR
1855329603	ACE	032	ALBATROS ACES OF WORLD WAR 1
1855329611	ACE	033	NIEUPORT ACES OF WORLD WAR 1
1841760781	ACE	034	ITALIAN ACES OF WORLD WAR 2
184176079X	ACE	035	P-40 WARHAWK ACES OF THE CBI
1841762040	ACE	036	P-39 AIRACOBRA ACES OF WORLD WAR 2
1841760846	ACE	037	BF 109 ACES OF THE RUSSIAN FRONT
1841760838	ACE	038	TOMAHAWK AND KITTYHAWK ACES OF THE RAF AND COMMONWEALTH
1841762229	ACE	039	SPAD VII ACES OF WORLD WAR 1
1841762237	ACE	040	FOKKER D-1 ACES OF WORLD WAR 1
1841762245	ACE	041	AMERICAN VOLUNTEERS' GROUP COLOURS & MARKINGS
1841763756	ACE	042	AMERICAN ACES OF WORLD WAR 1
1841762881	ACE	043	P-40 WARHAWK ACES OF THE MTO
184176289X	ACE	044	GLOSTER GLADIATOR ACES
1841763772	ACE	045	BRITISH AND EMPIRE ACES OF WORLD WAR 1
1841763764	ACE	046	AUSTRO-HUNGARIAN ACES OF WORLD WAR 1
1841763160	ACE	047	SPAD XIX/XX ACES OF WORLD WAR 1
1841763179	ACE	048	DOLPHIN AND SNIPER ACES OF WORLD WAR 1
1841764353	ACE	049	CROATIAN ACES OF WORLD WAR 2
1841764361	ACE	050	HUNGARIAN ACES OF WORLD WAR 2
184175437X	ACE	051	'DOWN TO EARTH' STRAFING ACES OF THE EIGHTH AIR FORCE
1841765341	ACE	052	SOPWITH CANAL ACES OF WORLD WAR 1
1841765333	ACE	053	FOKKER D VII ACES OF WORLD WAR 1
184176535X	ACE	054	RUMANIAN ACES OF WORLD WAR 2
1841765368	ACE	055	P-40 WARHAWK ACES OF THE PACIFIC

AVIATION ELITE UNITS (AEU)

Combat histories of fighter or bomber units

1841760463	AEU	001	JAGDGESCHWADER 2 'RICHTHOFEN'
1841760471	AEU	002	56th FIGHTER GROUP
1841761605	AEU	003	No 91 'NIGERIA' SQN
1841762628	AEU	004	LENTOLAIVUE 24
1841761613	AEU	005	B-29 HUNTERS OF THE JAAF
1841762865	AEU	006	JAGDGESCHWADER 54 'GRÜNERHERZ'
1841763152	AEU	007	354th FIGHTER GROUP
1841763829	AEU	008	352nd FIGHTER GROUP
1841764396	AEU	009	No 43 'FIGHTING COCKS' SQN
184176440X	AEU	010	359th FIGHTER GROUP
1841765376	AEU	011	303RD BOMBARDMENT GROUP
1841765384	AEU	012	JAGDGESCHWADER 27 'AFRIKA'
1841766089	AEU	013	LUFTWAFFE SCHLACHTGRUPPEN

COMBAT AIRCRAFT (COM)

History, technology and crews of military aircraft

1855326361	COM	001	JUNKERS Ju 87 STUKAGESCHWADER 1937-41
185532637X	COM	002	B-26 MARAUDER UNITS OF THE EIGHTH AND NINTH AIR FORCES
1855326892	COM	003	HELLDIVER UNITS OF WORLD WAR 2
1855326906	COM	004	MOSQUITO BOMBER/FIGHTER-BOMBER UNITS 1942-45
1855327236	COM	005	BLenheim SQUADRONS OF WORLD WAR 2
1855327228	COM	006	JUNKERS Ju 87 STUKAGESCHWADER OF NORTH AFRICA AND THE MEDITERRANEAN
1855327244	COM	007	F-8 CRUSADER UNITS OF THE VIETNAM WAR
1855327252	COM	008	P-61 BLACK WIDOW UNITS OF WORLD WAR 2
1855327317	COM	009	MOSQUITO FIGHTER/FIGHTER-BOMBER UNITS OF WORLD WAR 2
1855327325	COM	010	580 DAUNTLESS UNITS OF WORLD WAR 2
1855327813	COM	011	B-24 LIBERATOR UNITS OF THE PACIFIC WAR
1855327821	COM	012	RF-8 CRUSADER UNITS OVER CUBA AND VIETNAM
1855328917	COM	013	MOSQUITO PHOTO-RECONNAISSANCE UNITS OF WORLD WAR 2
1855328925	COM	014	HALIFAX SQUADRONS OF WORLD WAR 2
1855329018	COM	015	B-24 LIBERATOR UNITS OF THE EIGHTH AIR FORCE
1855329026	COM	016	TB/TBM AVENGER UNITS OF WORLD WAR 2
184176020X	COM	017	Ju 88 KAMPFGESCHWADER ON THE WESTERN FRONT
1841760218	COM	018	B-17 FLYING Fortress UNITS OF THE EIGHTH AIR FORCE (PART 1)
1841760242	COM	019	SUNDERLAND SQUADRONS OF WORLD WAR 2
1841760250	COM	020	TBD DEVASTATOR UNITS OF THE US NAVY
1841760811	COM	021	B-24 LIBERATOR UNITS OF THE FIFTEENTH AIR FORCE
184176082X	COM	022	MITSUBISHI TYPE 1 'RICKO' 'BETTY' UNITS OF WORLD WAR 2
1841762946	COM	023	ARAB-ISRAELI AIR WARS 1947-82
1841762903	COM	024	CONFLICT IN THE BALKANS 1991-2000
1841761621	COM	025	MIG-17 AND MIG-19 UNITS OF THE VIETNAM WAR
184176163X	COM	026	US NAVY F-4 PHANTOM II MIG KILLERS 1965-70
1841762954	COM	027	AIR WAR IN THE GULF 1991
1841762938	COM	028	AIR WAR IN THE FAR EAST 1982
1841762636	COM	029	MIG-21 UNITS OF THE VIETNAM WAR
1841762644	COM	030	US NAVY F-4 PHANTOM II MIG KILLERS 1972-73
1841763136	COM	031	LANCASTER SQUADRONS 1942-43
1841762849	COM	032	B-25 MITCHELL UNITS OF THE MTO
1841762857	COM	033	B-29 SUPERFORTRESS UNITS OF WORLD WAR 2
1841763837	COM	034	PV VENTURA-HARPOON UNITS OF WORLD WAR 2
1841764337	COM	035	LANCASTER SQUADRONS 1944-45
1841764345	COM	036	B-17 FLYING Fortress UNITS OF THE EIGHTH AIR FORCE (PART 2)
1841766585	COM	037	IRANIAN F-4 PHANTOM II UNITS IN COMBAT
1841765085	COM	038	B-17 FLYING Fortress UNITS OF THE MTO
1841764817	COM	039	B-17 FLYING Fortress UNITS OF THE PACIFIC WAR
1841766062	COM	041	US ARMY AH-1 COBRA UNITS IN VIETNAM

FRONTLINE COLOUR (FLC)

Colour photographs of historic military aircraft

1855329174	FLC	001	F-51 MUSTANG UNITS OVER KOREA
1855329298	FLC	002	F-86 SABRE FIGHTER-BOMBER UNITS OVER KOREA
1841760226	FLC	003	F-84 THUNDERJET UNITS OVER KOREA
1841760803	FLC	004	B-26 INVADER UNITS OVER KOREA
1841762253	FLC	005	F-80 SHOOTING STAR UNITS OVER KOREA
1841762873	FLC	006	F-86 SABRES OF THE 4TH FIGHTER INTERCEPTOR WING

PRODUCTION LINE TO FRONTLINE (PFL)

Production histories of historic military aircraft

1855328143	PFL	002	BOEING B-17 FLYING Fortress
185532749X	PFL	003	LOCKHEED P-38 LIGHTNING
1841760234	PFL	004	CONSOLIDATED B-24 LIBERATOR
1841764388	PFL	005	FOCKE-WULF Fw 190

For further details on these and other Osprey military history series please go to www.ospreypublishing.com or contact us – see below

To order any of these titles, or for more information on Osprey Publishing, contact:

Osprey Direct (UK) Tel: +44 (0)1933 443863 Fax: +44 (0)1933 443849 E-mail: info@ospreydirect.co.uk

Osprey Direct (USA) c/o MBI Publishing Toll-free: 1 800 826 6600 Phone: 1 715 294 3345

Fax: 1 715 294 4448 E-mail: info@ospreydirectusa.com

www.ospreypublishing.com



LaGG & Lavochkin Aces of World War 2



The LaGG-3 was the last of the new generation, piston-engined fighters to enter service with the Red Air Forces in early 1941. From the start it acquired an evil reputation which it never completely overcame, and was reputedly dubbed the 'Flying Coffin' due to its wooden construction, and the ease with which it was shot down. Its limited successes were gained at a high cost by stubborn and heroic pilots. However, if not itself a success, when the LaGG-3 was re-engined with the new M-82 radial

and renamed the La-5/7, it became one of the great fighters of World War 2. Soviet pilots who had survived the LaGG-3 found that they now had a machine capable of meeting their German opponents on equal terms. Indeed, the Lavochkin La-5/7 were the fighters of choice for Heroes of the Soviet Union such as Ivan Kozhedub, who claimed 62 kills with the machines. This volume features 37 colour profiles, 90+ photographs, 37,000 words of text and extensive aces and units listings.

OSPREY AIRCRAFT OF THE ACES

- The best-selling aviation series of the past five years, with over 600,000 copies sold to date
- Comprehensive histories of the elite fighter pilots, and the aircraft that they flew
- A unique source of information researched by recognised experts, and brought to life by first-hand accounts from the combat veterans themselves
- Concise, authoritative text is supported by at least 30 specially commissioned original colour artworks, new scale plans and the best archival photography from around the world



OSPREY
PUBLISHING

ISBN 1-84176-609-7



9 781841 766096